



P100 Series
Portable Radios
Detailed Service Manual

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Caution

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

ATTENTION!

This is restricted to occupational use only to satisfy ICNIRP RF energy exposure requirements. Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet enclosed with your (Motorola Publication part number 6804110J47) to ensure compliance with RF energy exposure limits.

For a list of Motorola-approved antennas, and other accessories, visit the following web site which lists approved accessories:

<http://www.motorolasolutions.com/governmentandenterprise>

DOCUMENT HISTORY

The following major changes have been implemented in this manual since the previous edition:

Edition	Description	Date
6878282A01-A	Initial edition	Mar, 2009
6878282A01-B	Added VHF, UHF1 and UHF1 non-RTTE band information (Chapter 8, 9, 10, 11, 12, 13)	Oct, 2009
6878282A01-C	Added UHF2 R&TTE info	Dec, 2009
6878282A01-D	Added MDC and QCII bands – VHF, UHF1 and UHF2 info	Apr, 2011
6878282A01-E	Added PCN schematics, layouts and parts lists for VHF (<i>E11-000997-00</i>), UHF1 (<i>E11-000996-00</i>), UHF2 (<i>E11-000995-00</i>), UHF2 (R&TTE) (<i>E11-000996-00</i>), VHF (MDC1200 & QCII) (<i>E11-001007-00</i>), UHF1 (MDC1200 & RQCII) (<i>E11-001016-00</i>), and UHF2 (MDC1200 & QCII) (<i>E11-000947-00</i>) bands (Chapter 7, 10, 13) Added MDC/QCII R&TTE bands – UHF1 and UHF2 (<i>E11-001016-00</i>) info (Chapter 7, 13)	Sept, 2011
6878282A01-F	Updated Maintenance chapter (Chapter 1) Updated CPS and Tuner part number for Service Aids table (Chapter 2) Updated Appendix A info	Sept, 2011

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Related Publications

EMEA

P100 Series – Quick Reference Card	6878276A01
P100 Series – Accessories Leaflet	6878278A01
P100 Series – R&TTE Leaflet	6878277A01
P100 Series – User Guide	6878279A01
P100 Series – Basic Service Manual	6878280A01
P100 Series – Detailed Service Manual	6878282A01
P100 Series – CPS Install Guide	6878281A01
P100 Series – Publication CDPMLN5424
Product Safety and RF Exposure Booklet	6864117B25

Notes

Notations Used in This Manual

Throughout the text in this publication, you will notice the use of the following notations. These notations are used to emphasize that safety hazards exist, and due care must be taken and observed.

Note An operational procedure, practice, or condition that is essential to emphasize.



Caution

CAUTION indicates a potentially hazardous situation which, if not avoided, might result in equipment damage.

Summary of Printed Circuit Boards and Bands Available

Table below lists all the bands available in this manual.

Frequency Band	Bandwidth	Power Level	PC Board Part Number	Board Revision	Chapter
UHF2	435 – 480 MHz	1 W or 4 W	<i>E11-000995-00* / E11-0767-0</i>	3* / 2	7
UHF2	435 – 480 MHz	1 W or 4 W	<i>E11-000002-02</i>	1	7
UHF2	435 – 480 MHz	1 W or 4 W	<i>E11-000886-00</i>	4	7
UHF2 (R&TTE)	435 – 470 MHz	1 W or 4 W	<i>E11-000996-00* / E11-0763-0</i>	3* / 2	7
UHF2 (R&TTE)	435 – 470 MHz	1 W or 4 W	<i>E11-000002-02</i>	1	7
UHF2 (R&TTE)	435 – 470 MHz	1 W or 4 W	<i>E11-000886-00</i>	4	7
UHF2 (MDC1200 and QCII)	435 – 480 MHz	1 W or 4 W	<i>E11-000947-00* / E11-000947-00</i>	2* / 1	7
UHF2 (MDC/QCII R&TTE)	435 – 470 MHz	1 W or 4 W	<i>E11-001016-00</i>	2	7
UHF2 (MDC/QCII R&TTE)	435 – 470 MHz	1 W or 4 W	<i>E11-000002-02</i>	1	7
UHF2 (MDC/QCII R&TTE)	435 – 470 MHz	1 W or 4 W	<i>E11-000886-00</i>	4	7
VHF	136 – 174 MHz	1 W or 5 W	<i>E11-000997-00* / E11-0762-0</i>	3* / 2	10
VHF	136 – 174 MHz	1 W or 5 W	<i>E11-000002-02</i>	1	10
VHF	136 – 174 MHz	1 W or 5 W	<i>E11-000886-00</i>	4	10
VHF (MDC1200 and QCII)	136 – 174 MHz	1 W or 5 W	<i>E11-001007-00* / E11-000948-00</i>	2* / 1	10
VHF (MDC/QCII R&TTE)	136 – 174 MHz	1 W or 5 W	<i>E11-001007-00</i>	2	10
VHF (MDC/QCII R&TTE)	136 – 174 MHz	1 W or 5 W	<i>E11-000002-02</i>	1	10
VHF (MDC/QCII R&TTE)	136 – 174 MHz	1 W or 5 W	<i>E11-000886-00</i>	4	10
UHF1	403 – 447 MHz	1 W or 4 W	<i>E11-000996-00* / E11-0763-0</i>	3* / 2	13
UHF1	403 – 447 MHz	1 W or 4 W	<i>E11-000002-02</i>	1	13

Frequency Band	Bandwidth	Power Level	PC Board Part Number	Board Revision	Chapter
UHF1	403 – 447 MHz	1 W or 4 W	<i>E11-000886-00</i>	4	13
UHF1 (MDC1200 and QCII)	403 – 447 MHz	1 W or 4 W	<i>E11-001016-00*</i> / <i>E11-000946-00</i>	2* / 1	13
UHF1 (MDC/QCII R&TTE)	403 – 447 MHz	1 W or 4 W	<i>E11-001016-00</i>	2	13
UHF1 (MDC/QCII R&TTE)	403 – 447 MHz	1 W or 4 W	<i>E11-000002-02</i>	1	13
UHF1 (MDC/QCII R&TTE)	403 – 447 MHz	1 W or 4 W	<i>E11-000886-00</i>	4	13

NOTE (*) Indicated board with part changed to Agamen IF demodulator IC

Notes

Chapter 1 Maintenance

1.0 Introduction

This chapter of the manual describes:

- Preventive maintenance
- Safe handling of CMOS devices
- Repair procedures and techniques

NOTE The Servicing of your Intrinsically Safe Radios.
In order to maintain compliance, radios that are FM Approved to intrinsically safe standards **MUST** be repaired at FM audited service centers. See *Further Assistance From Motorola* on page 1-2 for more information.

1.1 Preventive Maintenance

Periodic visual inspection and cleaning is recommended.

1.2 Inspection

Check that the external surfaces of the radio are clean, and that all external controls and switches are functional. It is not recommended to inspect the interior electronic circuitry.

1.3 Cleaning

The following procedures describe the recommended cleaning agents and the methods to be used when cleaning the external and internal surfaces of the radio. External surfaces include the front cover, housing assembly, and battery case. These surfaces should be cleaned whenever a periodic visual inspection reveals the presence of smudges, grease, and/or grime.

NOTE Internal surfaces should be cleaned only when the radio is disassembled for servicing or repair.

The only recommended agent for cleaning the external radio surfaces is a 0.5% solution of a mild dishwashing detergent in water. The only factory recommended liquid for cleaning the printed circuit boards and their components is isopropyl alcohol (100% by volume).



Caution

CAUTION: The effects of certain chemicals and their vapors can have harmful results on certain plastics. Aerosol sprays, tuner cleaners, and other chemicals should be avoided.

1. Cleaning External Plastic Surfaces

The detergent-water solution should be applied sparingly with a stiff, non-metallic, short-bristled brush to work all loose dirt away from the radio. A soft, absorbent, lintless cloth or tissue should be used to remove the solution and dry the radio. Make sure that no water remains entrapped near the connectors, cracks, or crevices.

2. Cleaning Internal Circuit Boards and Components

Isopropyl alcohol may be applied with a stiff, non-metallic, short-bristled brush to dislodge embedded or caked materials located in hard-to-reach areas. The brush stroke should direct the dislodged material out and away from the inside of the radio. Make sure that controls or tunable components are not soaked with alcohol. Do not use high-pressure air to hasten the drying process since this could cause the liquid to collect in unwanted places. Upon completion of the cleaning process, use a soft, absorbent, lintless cloth to dry the area. Do not brush or apply any isopropyl alcohol to the frame, front cover, or back cover.

NOTE Always use a fresh supply of alcohol and a clean container to prevent contamination by dissolved material (from previous usage).

1.4 Safe Handling of CMOS and LDMOS

Complementary metal-oxide semiconductor (CMOS) devices are used in this family of radios. CMOS characteristics make them susceptible to damage by electrostatic or high voltage charges. Damage can be latent, resulting in failures occurring weeks or months later. Therefore, special precautions must be taken to prevent device damage during disassembly, troubleshooting, and repair.

Handling precautions are mandatory for CMOS circuits and are especially important in low humidity conditions. DO NOT attempt to disassemble the radio without first referring to the CMOS CAUTION paragraph in the Disassembly and Reassembly section of the manual.



Caution

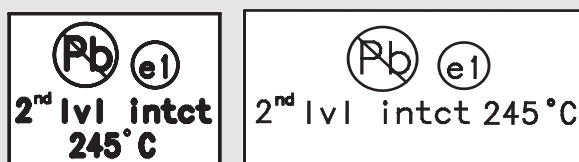
This radio contains static-sensitive devices. Do not open the radio unless you are properly grounded. Take the following precautions when working on this unit:

- Store and transport all CMOS devices in conductive material so that all exposed leads are shorted together. Do not insert CMOS devices into conventional plastic “snow” trays used for storage and transportation of other semiconductor devices.
- Ground the working surface of the service bench to protect the CMOS device. We recommend using a wrist strap, two ground cords, a table mat, a floor mat, ESD shoes, and an ESD chair.
- Wear a conductive wrist strap in series with a 100k resistor to ground. (Replacement wrist straps that connect to the bench top covering are Motorola part number 4280385A59).
- Do not wear nylon clothing while handling CMOS devices.
- Do not insert or remove CMOS devices with power applied. Check all power supplies used for testing CMOS devices to be certain that there are no voltage transients present.
- When straightening CMOS pins, provide ground straps for the apparatus used.
- When soldering, use a grounded soldering iron.
- If at all possible, handle CMOS devices by the package and not by the leads. Prior to touching the unit, touch an electrical ground to remove any static charge that you may have accumulated. The package and substrate may be electrically common. If so, the reaction of a discharge to the case would cause the same damage as touching the leads.

1.5 General Repair Procedures and Techniques

NOTE Environmentally Preferred Products (EPP) (refer to the marking on the printed circuit boards - examples shown below) were developed and assembled using environmentally preferred components and solder assembly techniques that meet or exceed compliance to the European Union's ROHS and WEEE directives (**Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC** and **Restriction of Hazardous Substances (ROHS) Directive 2002/95/EC**). To maintain product compliance and reliability, use only the Motorola specified parts in this manual.

For the identification of lead (Pb) free assemblies, all EPP products will carry the EPP Marking, shown below, on the printed circuit board (PCB). This marking provides information to those performing assembly, servicing and recycling operation on this product, adhering to the JEDEC standard #97. The EPP Marking takes the form of a label or marking on the PCB.



Any rework or repair on Environmentally Preferred Products must be done using the appropriate lead-free solder wire and solder paste as stated in the following tables:

Table 1-1. Lead Free Solder Wire Part Number List

Motorola Part Number	Alloy	Flux Type	Flux Content by Weight	Melting Point	Supplier Part number	Diameter	Weight
1088929Y01	95.5Sn/3.8Ag/0.7Cu	RMA Version	2.7-3.2%	217°C	52171	0.015"	1lb spool

Table 1-2. Lead Free Solder Paste Part Number List

Motorola Part Number	Manufacturer Part Number	Viscosity	Type	Composition & Percent Metal	Liquid Temperature
1085674C03	NC-SMQ230	900-1000KCPs Brookfield (5rpm)	Type 3 (-325/+500)	(95.5%Sn-3.8%Ag-0.7%Cu) 89.3%	217°C

Parts Replacement and Substitution

When damaged parts are replaced, identical parts should be used. If the identical replacement component is not locally available, check the parts list for the proper Motorola part number and order the component from the nearest Motorola Communications parts center listed in the "Piece Parts" section of this manual.

Rigid Circuit Boards

The family of radios uses bonded, multi-layer, printed circuit boards. Since the inner layers are not accessible, some special considerations are required when soldering and unsoldering components. The through-plated holes may interconnect multiple layers of the printed circuit. Therefore, care should be exercised to avoid pulling the plated circuit out of the hole.

When soldering near the connector pins:

- Avoid accidentally getting solder in the connector.
- Be careful not to form solder bridges between the connector pins
- Closely examine your work for shorts due to solder bridges.

For soldering components with Hot-Air or infra red solder systems, please check your user guide of the solder system to get information on solder temperature and time for the different housings of the integrated circuits and other components.

Chapter 2 Test Equipment, Service Aids, and Service Tools

2.1 Test Equipment

Table 2-1 lists test equipment required to service the radios.

Table 2-1. Recommended Test Equipment

Equipment	Characteristics	Application
System analyzer	This item will substitute for items with an asterisk (*)	Frequency/Deviation meter and signal generator for wide-range troubleshooting and alignment
Fluke 87 digital multi-meter*	True RMS metering, 200 kHz frequency counter, 32-segment bar graph with backlit display	Digital voltmeter is recommended for AC/DC voltage and current measurements
Fluke 85 RF probe	500 MHz, 30 VAC max	Use with Fluke 87 digital multi-meter for RF voltage measurements.
AC voltmeter*	1 mV to 300 mV, 10 mega-Ohm input impedance	Audio voltage measurements
Dual channel 100 MHz oscilloscope	Two-channel, 100 MHz bandwidth, 200 M sample rate/sec, 2 MB memory/channel	Waveform measurements
RF millivolt meter	100 μ V to 3V RF, 10 kHz to 1 GHz frequency range	RF level measurements
SINAD meter* or SINAD meter with RMS*	Without RMS audio voltmeter or With RMS audio voltmeter	Receiver sensitivity measurements

2.2 Service Aids

Table 2-2 lists the service aids recommended for working on the P100 Series Radios. While all of these items are available from Motorola, most are standard shop equipment items, and any equivalent item capable of the same performance may be substituted for the item listed.

Table 2-2. Service Aids

Motorola Part No.	Description	Application
PMDN4026_R	Flat Ceramic Tuning Tools (1.8mm)	Used for tuning the VCO.
PMDN4038_R	Knob Remover/Chassis Opener	Used to remove the front cover assembly.
PMDN4039_R	Crab Eye Nut Opener	Used to remove the crab eye nut.
PMDN4040_R ¹	Radio Test Box	Enables communication between the radio, test equipment and the computer's USB port.
PMDN4041_R	RF Adapter	Adapts radio's antenna port to BNC cabling of test equipment.
PMDN4044_R	T-Head Ceramic Tuning Tool	Used for tuning the VCO.
PMDN4053_R	Flat Ceramic Tuning Tools (0.9mm)	Used for tuning the VCO.
PMDN4076_R	Radio to Radio Cloning Cable	Allows a radio to be duplicated from a master radio by transferring programmed data from the master radio to the other.
PMDN4077_R	Programming Cable	Used to program the radio through Customer Programming Software and Radio Tuner.
PMDN4079_R	GND Plate	Interconnects radio's chassis to RF Adaptor.
PMDN4080_R	Battery Eliminator	Interconnects radio to power supply.
PMDN4171_R	Audio Combiner/Transformer	Enables communication between test box (PMDN4040_R) and test equipment (Motorola R2600 series)
GMVN5534_	P100 Series Programming Software	Program customer option and channel data.
GMVN5535_	P100 Series Tuner	Only Motorola Service Centers or Authorized Motorola Service Dealers can perform this function.

Note: 1. Use PMDN4040BR or higher for tuning the P100 Series radios as PMDN4040AR cannot be used to perform this function.

Programming/Test Cable

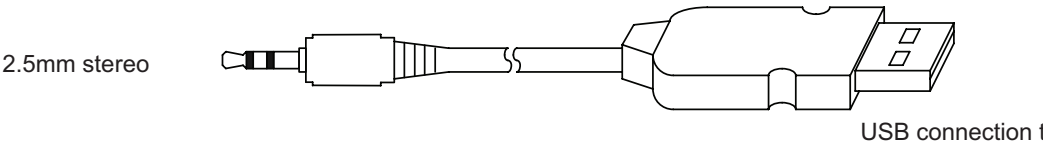


Figure 2-1. Programming/Test Cable (PMDN4077_R)

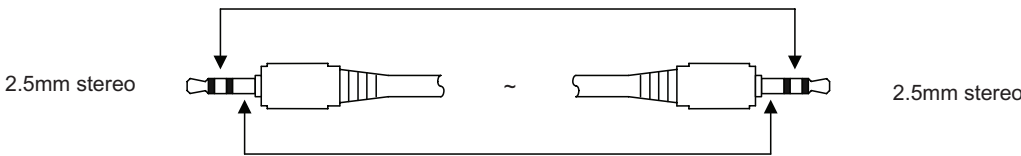


Figure 2-2. Cloning Cable (PMDN4076_R)

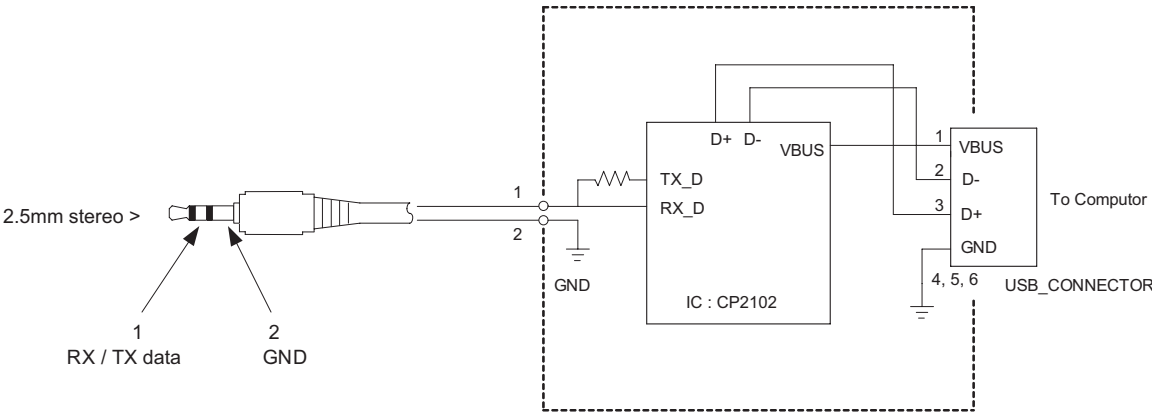


Figure 2-3. Wiring of the Connectors

Notes

Chapter 3 DC Power Distribution

3.1 DC Regulation and Distribution

A block diagram of the DC power distribution throughout the radio is shown in Figure 3-1.

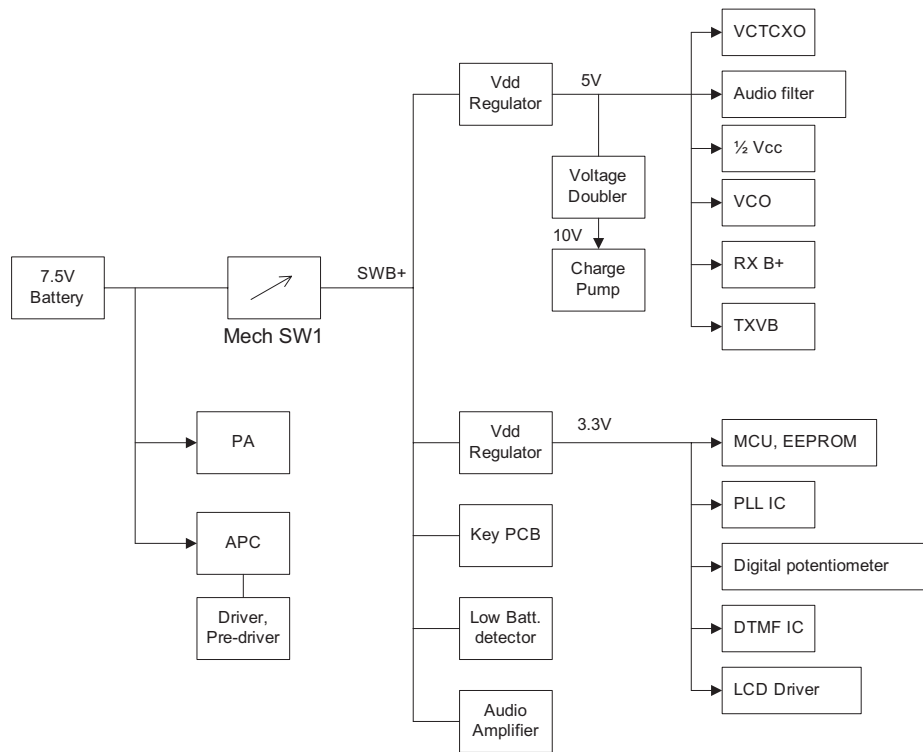


Figure 3-1. DC Power Distribution Block Diagram

Battery voltage enters at connector J602 and is routed through SW/VOL1 to become SWB+.

This voltage is routed to:

- SW/VOL1
- TX power amplifier Q403 (via R417)
- APC circuit U401
- RX audio power amplifier U601
- 5V regulator (U505)
- 3.3V regulator (U506)
- Voltage divider R153/R154, a microprocessor A/D input which measures battery voltage
- Key PCB

The following regulators are used:

Table 3-1. Voltage Regulators

Reference No.	Description	Type
U505	5V regulator	TK11250
U506	3.3V regulator	TK11233
U507	Voltage Doubler (10V)	TC12140

The 5 V source from U505 is applied to:

- RX back end circuitry
- RX/TX audio filters
- 1/2 VCC generator
- VCO power source (Q705, Q706)
- RX B+ (Q304)
- TXVB (Q407)
- VCTCXO

The 5 V source is also applied to transistor switches Q304 and Q407. Q304 is turned on by Q305 when RX_EN (from U101 Pin 71) is high, and supplies the source to mixer, IF IC and LNA. Q407 is turned on by Q408 when TX_EN2 (from U101 Pin 85) is high, and supplies the "TXVB" source to the first transmitter stage Q401 base, Q402 gate, APC power source (U401 Pin 8) and ANT switch (CR401).

The 3.3 V regulated source from U506 is applied to:

- MCU IC U101
- EEPROM IC U104
- DTMF IC U103
- Audio processor IC U102
- Microphone bias circuitry
- And applied to Key PCB (LCD driver power source)

The 10 V source from U507 is applied to Charge Pump.

Chapter 4 Controller Theory of Operation

4.1 RX Audio Circuit

The RX audio circuit consists of Audio Processor IC, Audio Amplifier, Internal (INT)/External (EXT) speaker and Sub-Audio Tones System.

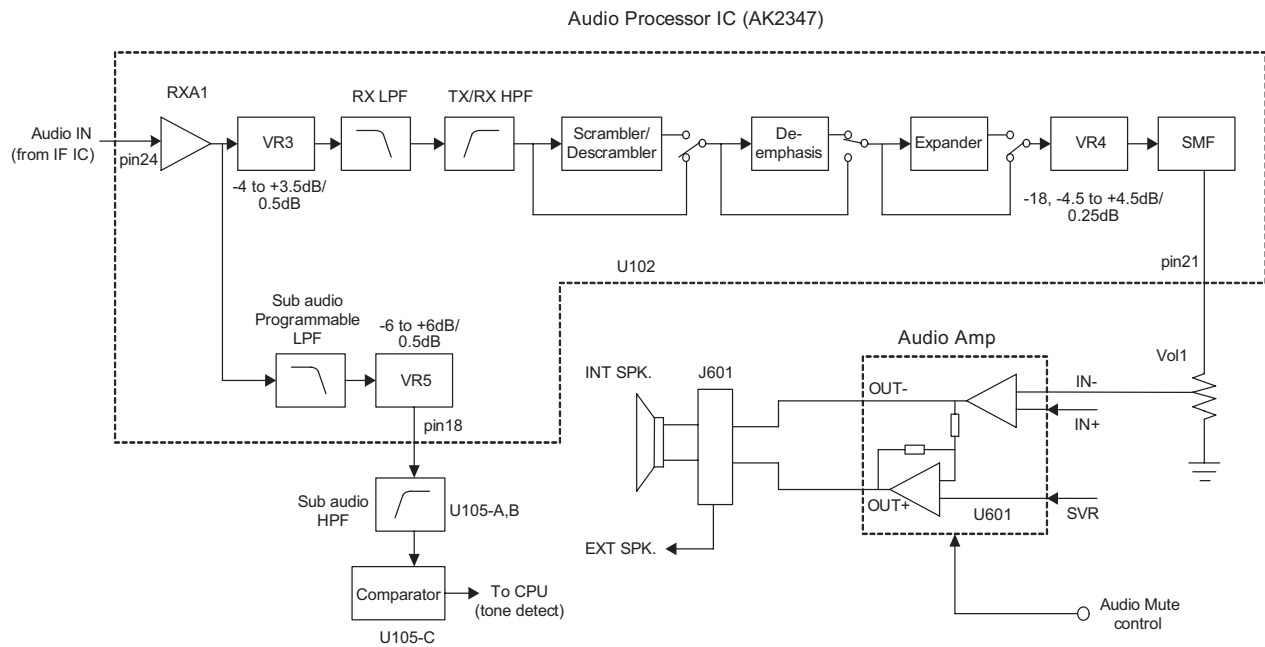


Figure 4-1. RX Audio Circuit

4.1.1 Audio processor IC (U102)

The RX audio from Pin 9 of U201 enters to Pin 24 of Audio processor IC.

- **RX A:** An operational amplifier used for gain adjustment of the receive demodulation signal from Pin 9 of U201. The gain is unity and it acts as a buffer amplifier.

4.1.1.1 RX Audio Processing

- **VR3:** This circuit controls the volume for adjusting the input level of receive demodulation signal. Adjustment range: -4.0dB to +3.5dB in 0.5dB steps.
- **RX LPF:** Low-pass filter to eliminate high-frequency components higher than 3 kHz which are included in the receive demodulation signal.
- **TX/RX HPF:** High-pass filter to eliminate low-frequency components lower than 250 Hz which are included in receive audio signal. This circuit is turned on and off by control register of Audio processor IC.
- **Descrambler:** This circuit inverts the spectrum distribution of receive audio signals with respect to the carrier frequency. The carrier frequency is 3.388 kHz or 3.290 kHz.

- **De-emphasis:** This circuit restores the original state of signal of which high-frequency component has been emphasized by the pre-emphasis.
- **Expander:** This circuit expands the signal compressed twice by the Compressor in dB scale to restore the original signal state.
- **VR4:** This circuit controls the volume for adjusting the RX output level. Adjustment range: -18.0dB, -4.5dB to +4.5dB in 0.25dB steps.
- **SMF:** Smoothing filter to eliminate the high-frequency and clock components generated in the Audio processor IC.

4.1.1.2 RX Tone PL/Digital PL Decode Filtering

- **Sub-audio Programmable LPF:** Low-pass filter to eliminate components of the RXA1 signal. This circuit is controlled by the internal registers and by the audio processor IC for cut-off frequency.
- **VR5:** This circuit controls the volume for adjusting the output level from the sub-audio LPF signal. Adjustment range: -6.0dB, +6.0dB in 0.5dB steps

The sub-audio tone of U102 Pin 18 output pass through switchable high-pass filter U105. This filter (U105-A, B) has 4 different high pass cut-off frequencies which can be selected accordingly to the sub-tone audio. This filter (U105-A, B) filters the unwanted sub-tone. The tone of U105-B output passed through U105-C comparator, which acts as a squaring circuit. This output signal is then sent to microprocessor Pin 3. The micro-processor then decodes CTCSS and CDCSS from this square signal.

4.1.2 Audio Amp

The de-emphasized audio signal from Pin 21 of audio processor IC passes through volume control (SW/VOL1) and is amplified by U601BTL audio amplifier to a sufficient level to drive a loud speaker. U601 has mute/un-mute function controlled by audio-mute control (Pin 83) of CPU. When U601 Pin 1 is low, the audio amp goes to active (un-mute) mode. When U601 Pin 1 is high, the audio amp goes to mute mode.

4.1.3 Internal and External Speaker

When no external speaker is plugged into J601, the RX audio is passed through to the internal speaker. When an external speaker is plugged into J601, the internal speaker is cut-off from the rest of the circuit and RX audio is passed through the external speaker.

4.2 TX Audio Circuit

The TX audio circuit consists of MIC/External MIC, LPF, Audio processor IC, and TX Sub-tone system. For UHF1 and UHF2, refer to Figure 4-2. For VHF, refer to Figure 4-3.

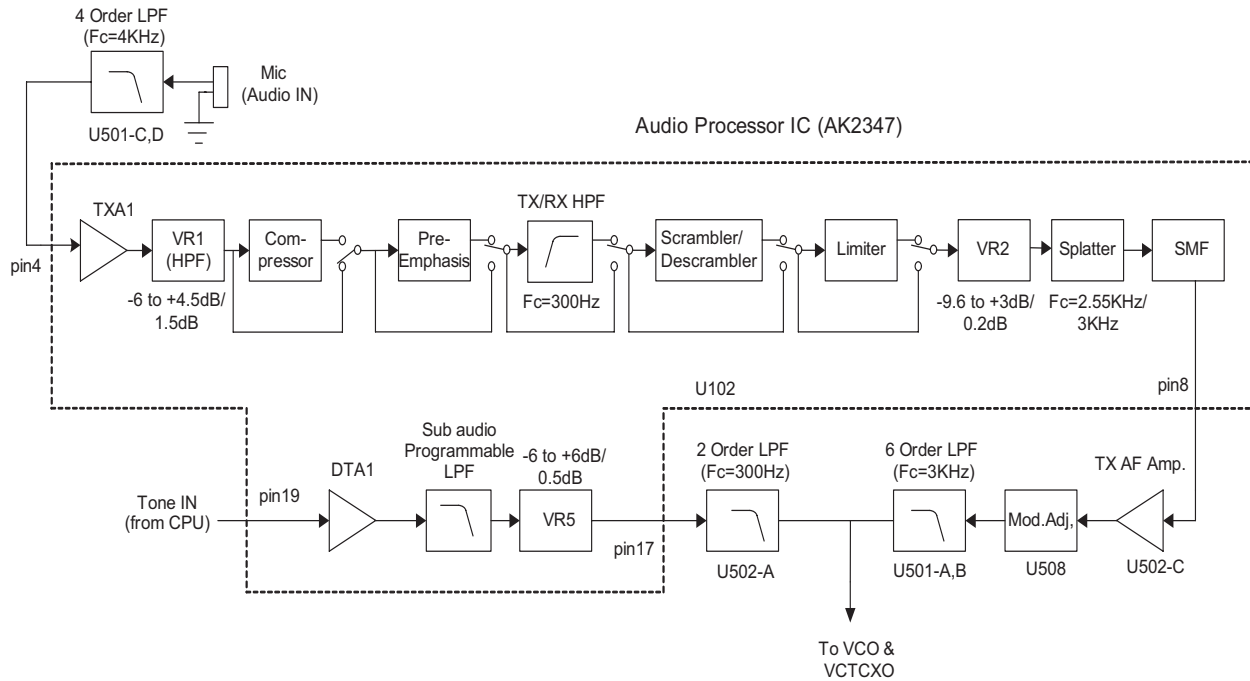


Figure 4-2. TX Audio Circuit (UHF1 and UHF2)

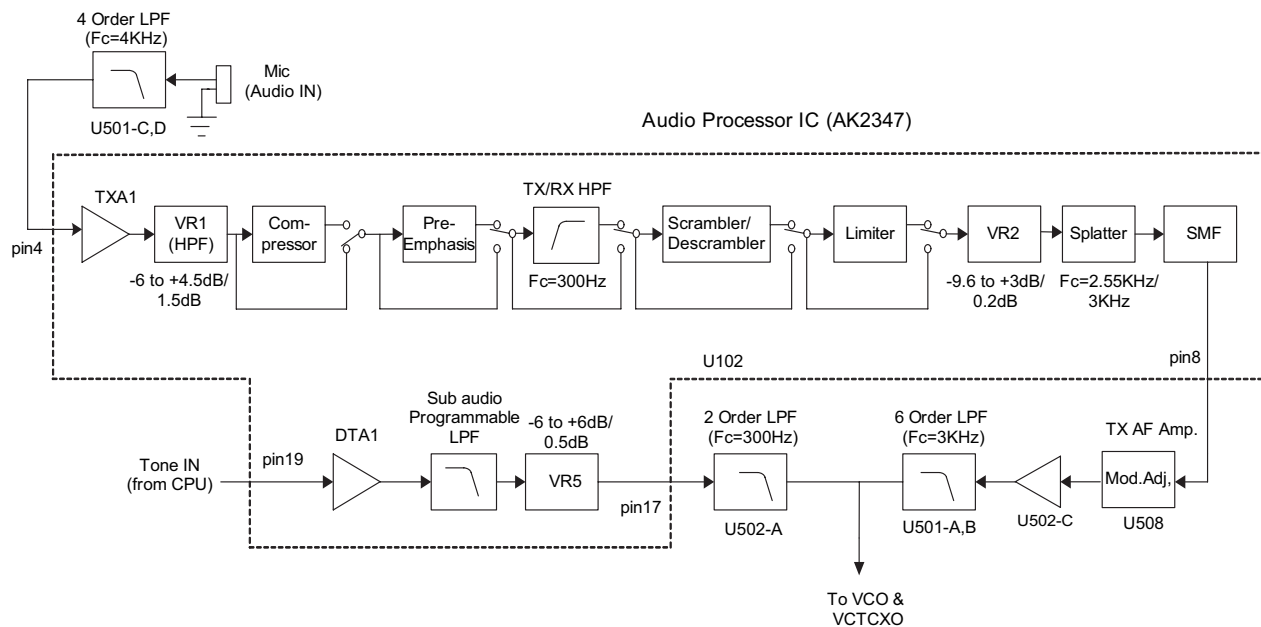


Figure 4-3. TX Audio Circuit (VHF)

4.2.1 MIC and External MIC

The TX audio enters the radio via the internal MIC or the external MIC jack. When using the internal MIC, the audio passes through the external jack then rest of the circuits. When using the external jack, the audio from the internal MIC is cut-off from the rest of the circuits and the external MIC audio is passed to the rest of the circuits.

4.2.2 4-order 4 kHz Low-Pass Filter (U501-C, D)

4-order 4 kHz Low-pass filter to prevent aliasing noise of the ASIC switching cut-off frequency.

4.2.3 Audio processor IC (U102)

4.2.3.1 TX Audio Processing

Tx Audio from Pin 14 of U501-D enters the ASIC at Pin 3, 4 (Internal TX AMP).

- **TX A1:** Operational amplifier for gain adjustment of TX audio signal. R102, R103, C102, C103 are used to set the gain.
- **VR1 (HPF):** This circuit controls the volume for adjusting the input level of TX audio signal. Adjustment range: -6.0dB, +4.5dB in 1.5dB steps
- **Compressor:** This circuit compresses the amplitude of transmit audio signal by 1/2 in dB scale.
- **Pre-emphasis:** This circuit emphasizes the high-pass frequency component of TX audio signal to improve the S/N ratio of the modulation signal.
- **TX/RX HPF:** High-pass filter to eliminate low-frequency components lower than 250 Hz which are included in transmitter audio signal. This circuit is turned on and off by control register of Audio Processor IC.
- **Scrambler:** This circuit inverts the spectrum distribution of transmitter audio signals with respect to the carrier frequency. The carrier frequency is 3.388 kHz or 3.290 kHz.
- **Limiter:** Amplitude limiting circuit to suppress frequency deviation in the modulation signal. The limit level can be adjusted by applying a DC voltage the LIMLV Pin 7. When the pin is left open, the level predetermined within the device is output.
- **VR2:** This circuit controls the volume for adjusting the output level on the MOD Pin 8. Adjustment range: -9.6dB to +3.0dB in 0.2dB steps.
- **Splatter:** Low-pass filter to eliminate high-frequency components higher than 3 kHz which are included in the limiter output signal. The cut-off frequency is 3 kHz.
- **SMF:** Smoothing filter to eliminate the high-frequency and clock components generated in the ASIC.

4.2.3.2 Tx Tone PL/Digital PL Encode Filtering

The encode circuit of CTCSS and CDCSS mixes signals from 4 ports of microprocessor. This mixed signal passes through ASIC Pin 19, 20 (U102).

- **DTA1:** Amplifier for gain adjustment of sub-audio signal which generated from CPU. Use external resistor and capacitor to set the gain.
- **Sub-audio Programmable LPF:** Low-pass Filter to eliminate components of DAT1 signal in the transmitter. This circuit is controlled cut-off frequency by the internal ASIC registers.
- **VR5:** This circuit controls the volume for adjusting the output level from the Sub-Audio LPF signal. Adjustment range: -6.0dB to +6.0dB in 0.5 steps.

4.2.4 TX audio amplifier and 6 order 3 kHz Low-Pass filter

The TX audio signal from ASIC Pin 8 (UHF1, UHF2) or U508 Pin 4 (VHF) is linked by TX audio amp (U502-C) to increase limiting range. The limited audio signal is adjusted to a proper level by U508 and passes through 6 order 3 kHz low pass filter (U501-A,B) before being modulated.

4.2.5 TX modulation Adjustment

TX audio signal from Pin 8 of U502-C (UHF1, UHF2) or Pin 8 of ASIC (VHF) is linked TX modulation adjustment IC (U508). The TX modulation is tuned in the factory. If any of the TX part is replaced, the TX modulation must be tuned using Tuner.

4.3 Microprocessor Circuitry

The microprocessor circuitry includes microprocessor (U101) and associated EEPROM.

Table 4-1. Radio Memory Requirements

Reference No.	Description		Size
U101	Microprocessor	Flash ROM	128 Kbyte * 8
		RAM	5 Kbyte * 8
U104	Serial EEPROM		8 Kbit * 8

4.3.1 Memory Usage

Radio operation is controlled by software that is stored in internal Flash ROM memory. Radio parameters and customer specific information is stored in External EEPROM (U104). The operating status of the radio is maintained in RAM located within the microprocessor. When the radio is turned off, the operating status of the radio is written to EEPROM before operating voltage is removed from the microprocessor.

4.3.2 Control and Indicator Interface

Ports Pin 35 and 36 are outputs which control the Sub-PCB mounted LED indicator. When Pin 35 is high, the indicator is green. When Pin 36 is high, the indicator is red. When both are high, the indicator is amber. When both are low, the indicator id is off.

Pressing the side-mounted PTT button (PB501) provides a low to port Pin 44, which indicates PTT is asserted. Side-mounted function buttons 1 & 2 (PB502 and PB503) are connected to port Pin 21 and Pin 32, respectively.

4.3.3 Interface to USB programming

The radio can be programmed, or the programmed information can be read, using a computer with CPS (Customer Programming Software) connected to the radio via a USB Programming cable (PMDN4077A). Connection to the radio is made via the microphone connector (part of accessory connector J601). The line connects the programming connect (J601 Pin 6) to port PRG/CLONE_RX (data into uP, Pin 34) and PRG/CLONE_TX (data out of uP, Pin 33).

4.3.4 Storage of Customer-Specific Information

Information that has been programmed using CPS, such as channel frequencies or selective signaling codes, etc, are stored in the external EEPROM, where it is retained permanently (unless reprogrammed) without needing DC power applied to the microprocessor.

4.3.5 Sensing of VOX operating

Port PTT2 (Pin 68) is used to detect the presence of VOX operating when externally connected accessories with VOX enabled. When port PTT2 is low, the VOX will start to operate.

4.3.6 Microprocessor Power-on reset Routine

On power-up, the microprocessor is held in reset until the digital 3.3V regulator (U506 Pin 4) provides a stable supply voltage. Once the digital supply reaches steady state and releases the reset line (U107 Pin 2), the microprocessor begins to start up. After reset release by all circuit, the software within the microprocessor begins executing port assignment, RAM checking, and initialization.

4.3.7 Microprocessor 7.3728 MHz Clock

The 7.3728 MHz clock signal (Pin 13, X-in) is provided from the FL101.

4.3.8 Battery indicator

Various battery types are available having different capacities. The radio can select different battery type by FPP (Front Panel Programming) or CPS. A voltage divided by R153 and R154. And EEPROM have a data for each battery types.

Chapter 5 435 – 480 MHz UHF2 Theory of Operation

5.1 Introduction

This chapter provides a detailed theory of operation for the radio components. Schematic diagrams for the circuits described in the following paragraphs are located in Chapter 7 of this manual.

5.2 UHF2 Receiver

The UHF2 receiver design covers the frequency range of 435 – 480 MHz and it is a double conversion super heterodyne with 1st IF 45.1 MHz and 2nd IF 455 kHz. The receiver is divided into two major blocks, Front End and Back End as shown in Figure 5-1.

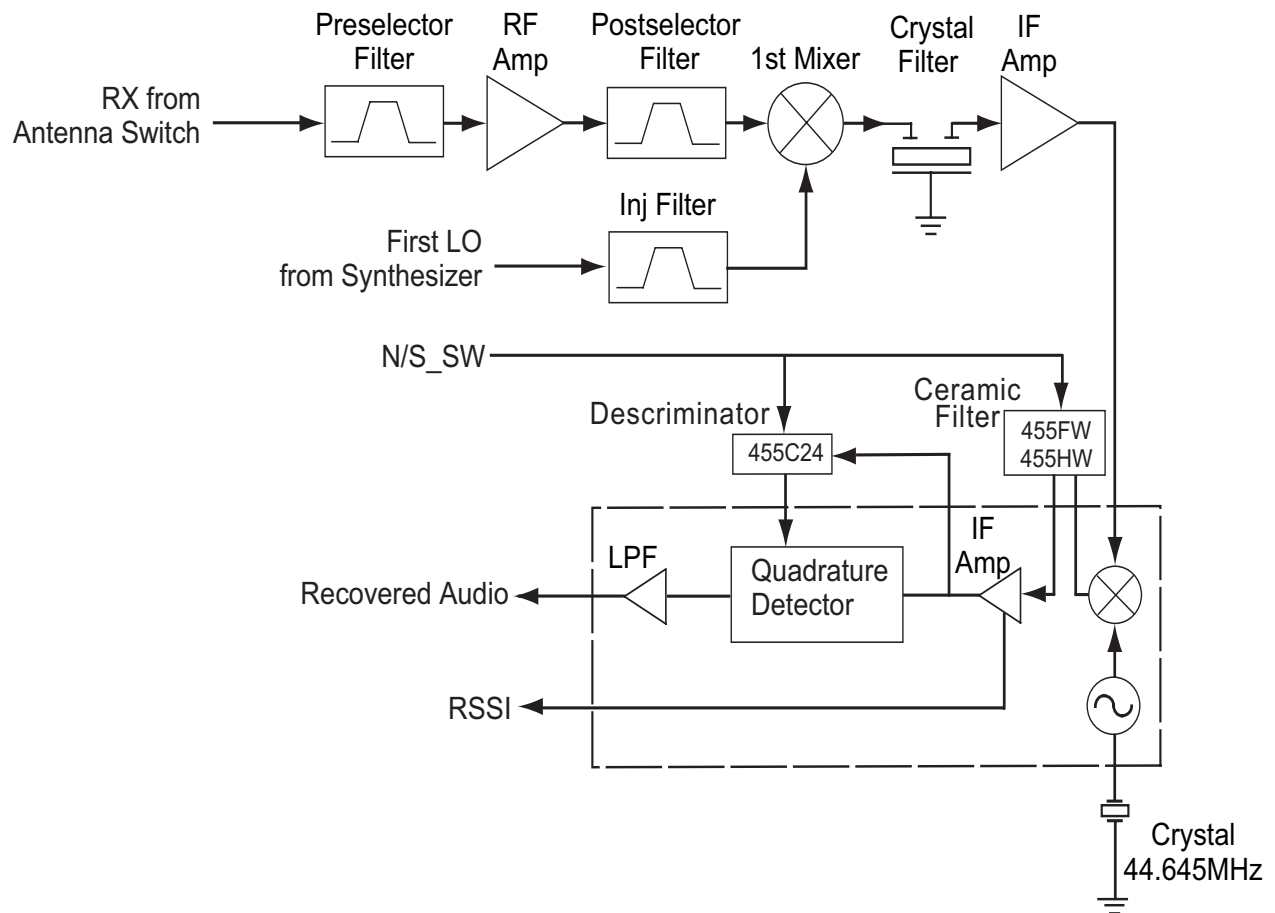


Figure 5-1. UHF2 Receiver Block Diagram

5.2.1 Receiver Front End

UHF2

Incoming RF signals from antenna are first routed through the harmonic filter (L409 – L411, C426 – C429, C445, and C446) and antenna switch (CR301), part of the transmitter circuitry, before being applied to the receiver front end. The receiver front end consists of preselector filter, RF amplifier, post-selector filter and a single-balanced mixer.

The preselector filter is a varactor-tuned 2-pole design using discrete elements (C351 – C361, L320, and L324) in a series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR314 and CR307, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when low-side local injection is used. The frequency is separated into 8 steps and controlled by CPU (435 – 480 MHz).

The output of this filter is matched to the base of RF amplifier Q301 which provides 13 dB of gain.

The output of the RF amplifier is applied to the post-selector filter. The post-selector filter designed using discrete elements (C354, C355, C379, L322, L323, L328) in a series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR304, CR305, and CR313, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when low-side local injection is used. The frequency is separated into 8 steps and controlled by CPU (435 – 480 MHz).

The output of the post selector is connected to the single-balanced mixer consisting of components L329, L333, Q306 and Q307. 1st local signal generated from VCO is filtered by injection filter (C325 – C327, L310, and L331) to remove second harmonics. The converted 1st IF frequency at mixer passes through L331 and matches the 45.1 MHz IF signal to pair crystal filter (FL301).

UHF2 R&TTE

Incoming RF signals from antenna are first routed through the harmonic filter (L409 – L411, C426 – C429, C445, C446) and antenna switch (CR301), part of the transmitter circuitry, before being applied to the receiver front end. The receiver front end consists of preselector filter, RF amplifier, post-selector filter and a double-balanced mixer.

The preselector filter is a varactor-tuned 2-pole design using discrete elements (L320, L324, C351 and C361) in a series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR314 and CR307, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when low-side local injection is used. The frequency is separated into 8 steps and controlled by CPU (435 – 480 MHz).

The output of this filter is matched to the base of RF amplifier Q301 which provides 13dB of gain.

The output of the RF amplifier is applied to the post-selector filter. The post-selector filter designed using discrete elements (L323, L328, C355, C363, and C379) in a series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR305 and CR313, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when low-side local injection is used. The frequency is separated into 8 steps and controlled by CPU (435 – 480 MHz).

The output of the post selector is connected to the double-balanced mixer consisting of components L329, L333, and CR316. 1st local signal generated from VCO is filtered by injection filter (L310, L331, C365, C386, and C387) to remove second harmonics. The converted 1st IF frequency at mixer passes through L331 and matches the 45.1 MHz IF signal to pair crystal filter (FL301).

5.2.2 Receiver Back End

The 1st IF signal is amplified about 15 dB by IF amp Q303. The output of the IF amp is connected to IF IC (U201). 1st IF frequency (45.1 MHz) and 2nd LO frequency (44.645 MHz) are mixed in U201. The second mixer converts the 45.1 MHz high IF frequency to 2nd IF frequency (455 kHz).

Additional IF selectivity is provided by two ceramic filters (CF1, CF2). The wider filter 455 FW is used for 20 kHz and 25 kHz channel spacing, and the narrower filter 455 HW is used for 12.5 kHz channel spacing. These two ceramic filters may eliminate undesired signal and demodulated by demodulator in U201. N/S_SW, which connected to microprocessor is used to select the wide and narrow band.

The mute (squellch) circuit switches off the audio amplifier when no audio is present. The squellch circuit consists of U201 and U202 and their associated components. The noise signal from Pin 9 of U201 is used to control the squellch circuit sensitivity of U202. The noise passes through filter, and is amplified by internal amp of U201. The amplified noise act as a DC voltage to control the mute system. So if the noise level is under the threshold voltage, the microprocessor (U101) un-mutes the radio. If the noise level is over the threshold voltage, the microprocessor mutes the radio.

The squellch level is tuned in the factory. When a component or a part in the RX system is replaced, the squellch must be re-tuned using the Tuner.

5.3 UHF2 Transmitter

The UHF2 transmitter covers the range of 435 – 480 MHz. Depending on model, the output power of the transmitter is switchable on a per-channel basis between high power (4 Watts) and low power (1 Watt). The transmitter is divided into four major blocks as shown in Figure 5-2.

- Power Amplifier
- Harmonic Filter
- Antenna Matching Network
- Power Control.

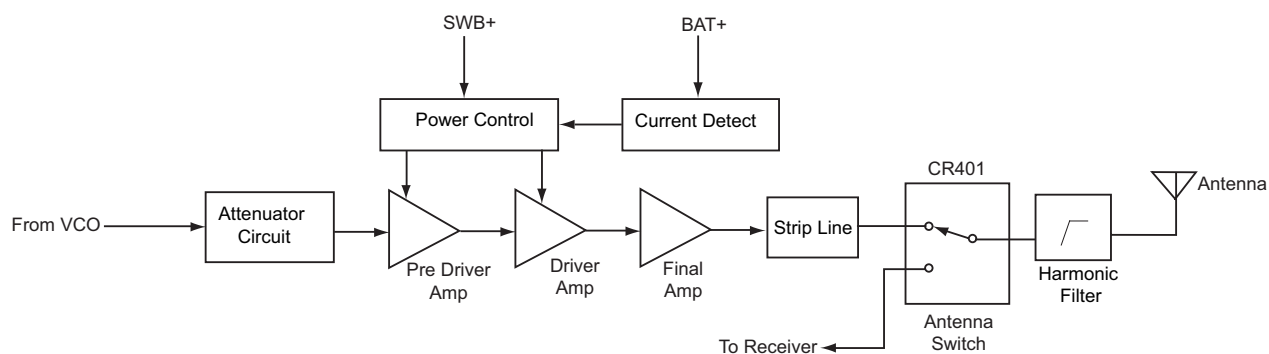


Figure 5-2. UHF2 Transmitter Block Diagram

5.3.1 Power Amplifier

The transmitter power amplifier has three stages of amplification – Pre Driver (Q401), Driver Amp (Q402) and Final Amp (Q403). Signal from TX VCO is applied to the pre driver via an attenuator circuit. The attenuator is pie style resistor attenuator, and is used as isolation between VCO and the power amps. The -4dBm TX RF signal from attenuator is then amplified by pre driver and driver amp to around +25dBm and is applied to the final amp. The final amp (Q403) is an enhancement-mode N-channel MOSFET device providing a gain of 12 dB. The device drain current is drawn directly from the DC battery supply voltage input via L413.

UHF2

A matching network consisting of C416 – C420, and a strip line, transforms the impedance to approximately 50 Ohm.

UHF2 R&TTE

A matching network consisting of C416 – C418, C420, C451, C452, and a strip line, transforms the impedance to approximately 50 Ohm.

5.3.2 Antenna Switch

An antenna switch works mainly as a switching device between transmit and receive paths. In transmit mode (PTT), Q407 is turned on and both PIN diodes (CR401, CR301) are forward biased into conduction. This enables the RF signal to pass to the harmonic filter and then to the antenna. In the receiver mode, both diodes are off. Signals applied to the antenna jack are routed via the LPF (harmonic filter), through network L409 – L411, to the receiver input.

5.3.3 Harmonic Filter

UHF2

The harmonic filter consists of components L409 – L411, C426 – C430, C445, and C446. The harmonic filter is a seven-pole elliptic filter.

UHF2 R&TTE

The harmonic filter consists of components L409 – L411, C426 – C429, C445, and C446. The harmonic filter is a seven-pole elliptic filter.

5.3.4 Auto Power Control

The APC keeps the current supply constant to the final amp (Q403). The drain current of Q403 (final amp) is sensed across resistor R417. The voltage difference across R417 is amplified through U401 by the ratio of R423 to R417. The differential signal at the output of U401 (Pin 7) is passed to Q404 and Q405 that produces a constant power output to the antenna. If the current is changed due to change of battery voltage or load, APC controls gate voltage of Q403 and collector voltage of Q401 and drain voltage of Q402 to keep TX power stable. This circuit stabilizes TX power at a pre-determined level adjusted by U402. This bias voltage is tuned in the factory. If the transistor (Q403) is replaced, the RF Output Power must be tuned. By tuning the RF output power, the bias voltage will be tuned through U402. Extra care has to be taken during the tuning process. Do not exceed the maximum allowed bias voltage.

5.4 UHF2 Frequency Generation Circuitry

The PLL synthesizer subsystem consists of the reference oscillator (VCTCXO), VCO, PLL IC, Charge Pump and Loop Filter.

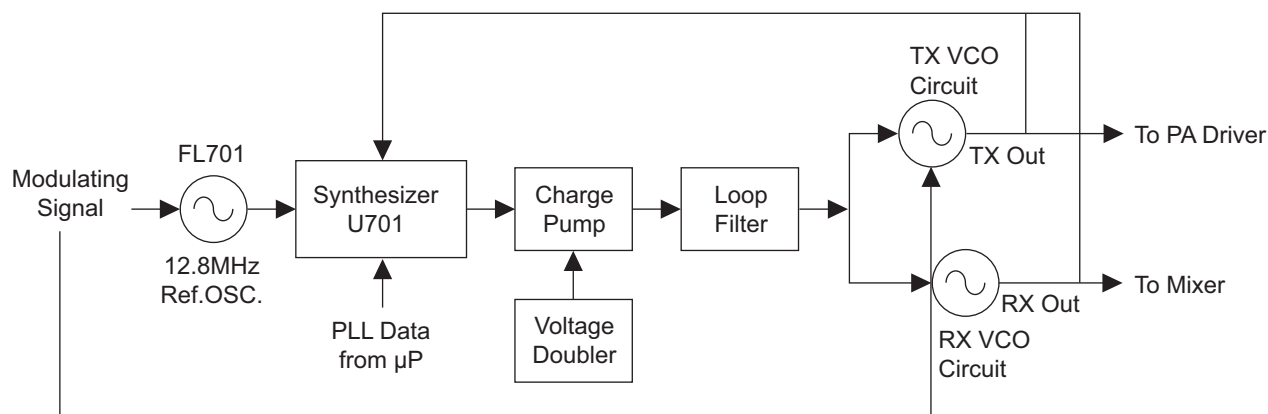


Figure 5-3. UHF2 Frequency Generation Unit Block Diagram

5.4.1 Reference Oscillator (12.8 MHz VCTCXO)

The reference oscillator is powered by regulated 5V provided by U505. The reference frequency 12.8 MHz VCTCXO (Voltage Controlled Temperature Compensated Crystal Oscillator) is applied to the PLL IC (U701) via Pin 1. Main frequency can be adjusted by chip trimmer of VCTCXO. This frequency provides reference to the PLL IC and has a frequency stability of ± 2.5 PPM (max) at the temperature ranging from -30 to +60 Degree Celsius.

5.4.2 PLL IC Prescaler and Comparator

The reference frequency from VCTCXO is divided to 6.25 kHz or 5 kHz by reference counter, R. The RF signal input from the VCO is divided to by prescaler (1/64), divided by N and A counters in PLL IC to determine frequency steps and then supplied to the comparator. The comparison frequency is 6.25/5 kHz. The internal phase comparator compares the phase difference between the reference and VCO signal. When the phase of the reference frequency is leading, Pin15 (R) is the output. When VCO frequency is leading, Pin 16 (P) is the output. When P=R, small pulses are the output of the phase detector.

5.4.3 Voltage Doubler and Charge Pump

The voltage doubler (U507) converts 5 V to 10 V and is applied to the charge pump circuitry. The charge pump is used for charging output signals P, R supplied by PLL IC from 0 – 3.3 V to 0 – 10 V. This voltage is used to drive the VCO.

5.4.4 Loop Filter

The loop filter contains C751 – C754, and R726 – R728. It reduces the residual side-band noise to get the best signal-to-noise ratio. The output signal from loop filter is applied to VCO.

5.4.5 Dual VCO

The dual VCO module contains a RX VCO and a TX VCO. They are configured as colpitts oscillators and connected to power up through transistor switches. Only one VCO is selected at a time. A steering line voltage between 0.35 V and 9.7 V at varactor CR701 tunes the full RX frequency range from 389.9 MHz to 434.9 MHz, and varactor CR702 tunes the full TX frequency range from 435 MHz to 480 MHz.

In Receiver mode, high signal of RX_EN from Pin 71, U101 activates Q305. When Q305 is activated, current flows through the base of Q304 and thus activates the Q705. The varactor CR701 sets the resonance frequency. When there is a change in voltage supplied by loop filter, there is a change in the resonance frequency. L703 is the resonating coil, which forms the tank circuit together with variable cap C710.

In Transmit mode, high signal of TX_EN1 from Pin 84, U101 enables current flows through collector of Q503 and thus activates Q706. The varactor CR702 sets the resonance frequency. When there is a change in voltage supplied by loop filter, there is a change in the resonance frequency. L706 is the resonating tuning coil, which forms the tank circuit together with variable cap C722.

5.5 Keypad

Left, Right and P1 to P3 keys are directly connected to microprocessor via 22 pin connector. When any of these keys is pressed, the voltage goes "low" and microprocessor detects it.

For full keypad models, the number keys are in matrix type which consisted of 3 rows and 4 columns. When any of these keys is pressed, the voltage goes "low" and microprocessor interprets the voltage for each key press.

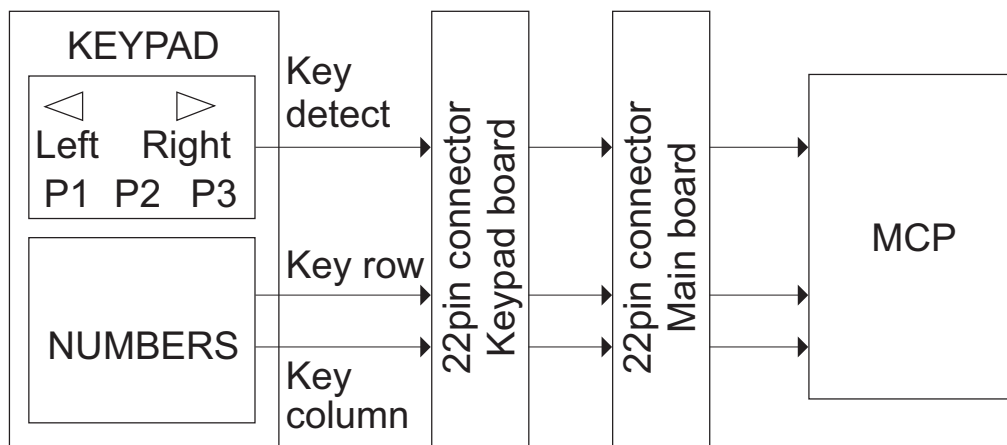


Figure 5-4. Keypad Block Diagram

Chapter 6 UHF2 Troubleshooting Tables

6.1 Troubleshooting Table for Receiver (UHF2)

Table 6-1. Troubleshooting Table for Receiver (UHF2)

Symptom	Possible Causes	Procedure	Corrective Action
Radio Dead (no turn-on beep, no LED indication)	1. Battery dead or defective	Substitute good battery or battery eliminator	Change or replace battery.
	2. Defective battery contacts	Inspect battery contacts for corrosion or bent terminals	Clean/Repair/Replace J602
	3. Microprocessor not starting up	Verify clock input to U101 Pin 13 is 7.3728 MHz using high impedance probe.	Troubleshoot/Replace FL101.
		Verify U101 Pin10(reset) is high.	If reset is Low, troubleshoot regulator U506 or U107.
	4. Regulator fault	Verify U506 Pin 4 is 3.3V	Check for shorts on outputs
		Verify U505 Pin 4 is 5.0V	Troubleshoot/Repair as needed, replace faulty regulator
	5. Flexible Cable fault	Check connection of the 12 pin flexible cable between J104 & J105	Re-assemble or replace flexible cable
No RX Audio (with LED indication)	1. Speaker dead or defective	Substitute a good housing (with speaker)	Change the housing (with accessory)
		Verify J603 connection	Change the housing (with accessory)
	2. Audio Processor IC not starting up	Verify clock input U102 Pin 14 is 3.5795 MHz using high impedance probe.	Troubleshoot/Replace FL102
	3. Audio Amp IC not starting up	Verify U601 Pin 6 is battery voltage.	Troubleshoot/Replace U601
		If battery voltage is being supplied to Pin 6, then verify audio output at Pin 5 & 8.	
No Receive (with no LED indication)	1. IF IC dead or fault	Verify clock input to U201 Pin 1 & 2 is 44.645Mhz using high impedance probe.	Troubleshoot/Replace FL201
No RX	1. RX-B+	Verify Q304's collector voltage is 4.8V when RX-EN is high.	Check/Replace Q304

6.2 Troubleshooting Table for Synthesizer (UHF2)

Table 6-2. Troubleshooting Table for Synthesizer (UHF2)

Symptom	Possible Causes	Procedure	Corrective Action
Synthesizer Out of Lock (No RX Mode)	1. Defective 12.8 MHz VCTCXO	Verify clock output FL701 Pin 3 is 12.8 MHz using high impedance probe.	Repair/Replace FL701
	2. 1/2VCC defective	Verify FL701 Pin 1, U502-B Pin 5 & U502-D Pin 14 voltage is 1.9V.	Troubleshoot: 1/2VCC circuitry
	3. No RX-Enable	Verify U101 Pin 71 (RX-EN1) is high. Verify Q304 collector voltage is approximately 4.7 V in RX mode	Check U101 operating Troubleshoot: Q304 & Q305 circuitry
	4. Check PLL-LD port	Verify U101 Pin 27 is Low (Normal Mode) Verify U101 Pin 27 is swept from low to high (Power Save Mode)	Troubleshoot: PLL circuitry. Repair/Replace U701
Synthesizer Out of Lock (No TX Mode)	1. Defective 12.8 MHz VCTCXO	Verify clock output FL701 Pin 3 is 12.8 MHz using high impedance probe.	Repair/Replace FL701
	2. 1/2VCC defective	Verify FL701 Pin 1, U502-B Pin 5 & U502-D Pin 14 voltage is 1.9 V.	Troubleshoot: 1/2VCC circuitry
	3. No TX-Enable	Verify U101 Pin 84 (TX-EN1) is high when PTT is pressed. Verify Q407 collector voltage is approximately 4.7V when PTT is pressed (TX-EN2).	Check U101 operating Check U101-Pin 85 is high/ Replace Q407/check LK2 is short
	4. Check PLL-LD port	Verify U101 Pin 27 is Low (Normal Mode) Verify U101 Pin 27 is swept from low to high (Power Save Mode)	Troubleshoot: PLL circuitry Repair/Replace U701

6.3 Troubleshooting Table for Transmitter (UHF2)

Table 6-3. Troubleshooting Table for Transmitter (UHF2)

Symptom	Possible Causes	Procedure	Corrective Action
No internal Mic audio	1. Mic dead or defective	Verify audio present (~10m Vrms) when speaking into Mic. Check bias of R194 (3.3 V).	Replace Mic.
	2. Mic bias fault	Verify U101 Pin 78 is 1.1 V when PTT button is pressed.	Check/Replace U101
	3. Audio Processor IC not starting up	Verify clock input U102 Pin 14 is 3.5795 MHz using high impedance probe.	Troubleshoot/Replace FL102
No EXT. Mic audio	1. J601 defective	Check connection with EXT mic	Check/Replace J601
	2. Audio Processor IC not starting up	Verify clock input U102 Pin 14 is 3.579545 MHz using high impedance probe.	Troubleshoot/Replace FL102
No transmit (No TX LED indication)	1. PTT switch defective	Verify U101 Pin 44 is low when PTT is pressed.	Replace PTT switch PB501
No transmit (TX LED indication OK)	1. Synthesizer out of lock	Refer to Table 6-2.	Refer to Table 6-2.
	2. No TX-Enable	Verify U101 Pin 84 (TX-EN1) is high when PTT is pressed. Verify Q407 collector voltage is approximately 4.7 V when PTT is pressed (TX-EN2).	Check U101 Pin 85 is high/ Replace Q407/Check LK2 is short
Low Power	1. Low TX injection	Check the RF level at Q409 & C449 per schematic.	Troubleshoot Q409 circuitry & VCO bias
	2. R417 defective	Verify resistance is 0.1 Ohm	Replace R417.
	3. Incorrect control voltage	Verify Q404 collector voltage is approximately 5.5V in low frequency & high power.	Troubleshoot APC circuitry Replace Q404
	4. Q403 defective (High current)	Verify U401 Pin 7 is near 0 V	Replace Q403
	5. Antenna switch defect	Verify CR401 anode voltage is approximately 1.4 V	Check/replace CR401 & CR301
	6. Harmonic filter defective	Visually inspect components C426 – C429, C445, C446, C430	Repair/Replace if necessary
	7. Incorrect power tuning (this has to be performed only after item 1-6 has been checked)	Check conducted power	Re-tune power using tuner.
Poor TX range (Conducted power OK)	1. Defective or wrong Antenna.	Verify correct antenna is installed. Try using another antenna.	Replace antenna

6.4 Troubleshooting Table for Board and IC Signals (UHF2)

Table 6-4. Troubleshooting Table for Board and IC Signals (UHF2)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
U201(IF IC)	1	Osc1	3.9	44.645 MHz input
	2	Osc2	3.3	
	4	VCC	4.7	
	9	Audio frequency	1.2	
	12	RSSI out	Approximately 1	At -47 dBm (with conducted)
	13	N-DET(BUSY)	Low	At busy
	15	GND	0	
	16	RF input	1	45.1 MHz input
U701(PLL IC)	1	Reference OSC input	1.4	12.8 MHz input
	4	VCC	3.3	
	6	GND	0	
	7	XF IN	2.2	
	8	F IN	2.2	
	12	Power save	High	
	13	GND	0	
	14	LD_out	High	If pll unlock is low
	15	@P	2.4	
	16	@R	Low	
U601	1	Mode (Mute con)	0	
(Audio Amp.)	2	SVR	3.8	
	3	IN+	3.8	
	4	IN-	3.8	
	5	OUT-	3.8	
	6	VCC	7.5	This voltage depends on Battery
	7	GND	0	
	8	OUT+	3.8	
U103	1	IN+	1.6	

Table 6-4. Troubleshooting Table for Board and IC Signals (UHF2) (Continued)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
(DTMF decoder)	2	IN-	1.6	
	3	GS	1.6	
	4	Vref	1.6	
	8	OSC1	1.6	3.579545 MHz input
	10	VSS	0	
	11	TOE	3.3	
	17	STD	High	At DTMF detecting
	18	EST	3.3	
	19	ST/GT	3.3	
	20	VDD	3.3	
FL701(VCTCXO)	1	VCON	1.9	
	2	GND	0	
	3	OSC out	osc	Generate the 12.8 MHz
	4	VCC	5	
Q206(N/S SW)	E	GND	0	
	B	N/S SW	12.5 kHz: Low	
	C	Collector	12.5 kHz: High 25 kHz: Low	
Q304	E	+5V	5	At RX Mode
	B	To Q305 collector	Low	
	C	RX_B+	4.7	
Q305	E	GND	0	At RX Mode
	B	RX_EN	High	
	C	To Q304 base	Low	
Q503	E	GND	0	At TX Mode
	B	TX_EN1	High	
	C	To Q706 base	Low	
Q407	E	+5V	5	At TX Mode
	B	To Q408 collector	Low	
	C	TXVB	4.7	
Q408	E	GND	0	At TX Mode
	B	TX_EN2	High	
	C	To Q407	Low	

Table 6-4. Troubleshooting Table for Board and IC Signals (UHF2) (Continued)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
Q601	E	GND	0	
	B	Audio_MUTE_CON	Mute: Low	
			None Mute: High	
	C	Mode	Mute: High	
			None Mute: Low	

1. All voltages are measured with a high-impedance digital voltmeter and expressed in volts DC relative to ground (0V).
2. Voltages are measured with a DC input voltage of 7.50 + .02 volts DC applied to the battery connector (J602).
3. All voltages are measured in the squelched receive mode, unless otherwise indicated.
4. Voltages are identical for VHF and UHF models unless otherwise indicated.

Chapter 7 UHF2 Schematic Diagrams, Overlays, and Parts Lists

7.1 Introduction

This section provides schematic diagrams, overlays, and parts lists for the radio circuit boards and interface connections.

7.1.1 Notes For All Schematics and Circuit Boards

* Component is frequency sensitive. Refer to the Electrical Parts List for value and usage.

1. Unless otherwise stated, resistance values are in Ohms ($K = 1000$), capacitance values are in nanofarads (nF), picofarads (pF) or microfarads (μF), and inductance values are in nanohenries (nH) or microhenries (μH).
2. DC voltages are measured from point indicated to chassis ground using a Motorola DC multimeter or equivalent. If the board has been removed from the chassis, the transmitter module mounting screws may be used for ground connection. (*Note: The antenna nut bracket is connected to ground.*) Operating mode dependent voltages are followed by (RX) for receive mode, (TX) for transmit mode, (UNSQ) for unsquelched mode, etc.
3. RF voltages on VHF models are measured with a Fluke model 85 RF probe. The indicated voltages expressed in mV (RF) are DC level readings which correspond approximately 1:1 to the RF voltage level in mV rms. RF voltages in the Receiver Front End and Receiver Back End circuits are measured with an on-channel 1mV (-47dBm) RF signal applied to the antenna jack ANT1/ANT.
4. RF voltages on UHF models are measured both with a high-impedance RF voltmeter having a bandwidth in excess of 500 MHz (levels are expressed in dBm) and with a Fluke model 85 RF probe [levels are expressed in mV (RF)]. These indicated voltages are DC level readings which correspond approximately 1:1 to the RF voltage level in mV rms, and are only approximate for UHF frequency measurements. RF voltages in the Receiver Front End and Receiver Back End circuits are measured with an on-channel 1mV (-47dBm) RF signal applied to the antenna jack ANT1/ANT.
5. Audio voltages are measured with a high-impedance AC rms voltmeter. The indicated voltages are expressed in mV rms. Receive mode voltages are followed by (RX) and are measured with an on-channel signal with 1 kHz modulation at 60% deviation (3 kHz for 25 kHz channels, or 1.5 kHz for 12.5 kHz channels). Transmit mode voltages are followed by (TX) and are measured with a 1 kHz, 10 mV rms signal present at the external microphone input (accessory connector J601).

6. Reference Designators are assigned in the following manner:

Ref. No. Series	Circuit Block
101 – 199	Microprocessor & audio control circuits
1001 – 1099	Microprocessor & audio control circuits
201 – 299	IF IC circuit
301 – 399	Front-end and 1st Mixer
401 – 499	Transmit RF stage & Auto power control
501 – 599	Base band & generating circuit
601 – 699	Audio amplifier
701 – 799	VCO & PLL Synthesizer

7. Circuit Block Interconnection Legend:

Name	Description
+5V	5 Volts (Regulated)
+3.3V	3.3 Volts (Regulated)
SWB+	Switched Battery Voltage
BAT+	Unswitched Battery voltage
+10V	Digital 10V(Regulated)
RESET	Low-line reset signal from U107 to U101 Pin 10
TX_EN1	Transmit enable signal from U101 Pin 84
TX_EN2	Transmit enable signal from U101 Pin 85
TXVB	TX operating voltage
TX_AF3	TX audio signal from audio processor IC to TX Audio filter
TX_SUB_TONE	TX sub tone signal from audio processor IC to TX modulation.
RX_B+	RX operating voltage
RSSI	RX signal strength indication from IF IC to U101
Busy	RX detect signal from IF IC to U101
FTV	RX frequency shift voltage
RX_AF1	RX audio signal from IF IC to Audio processor IC
PLL_LD	PLL lock detect signal from PLL IC to U101
N/S SW	Channel space selectable Switch (12.5 kHz/25 kHz)
1/2VCC	1.9 volts (divided by U502-D)

7.1.2 Four Layer Circuit Board

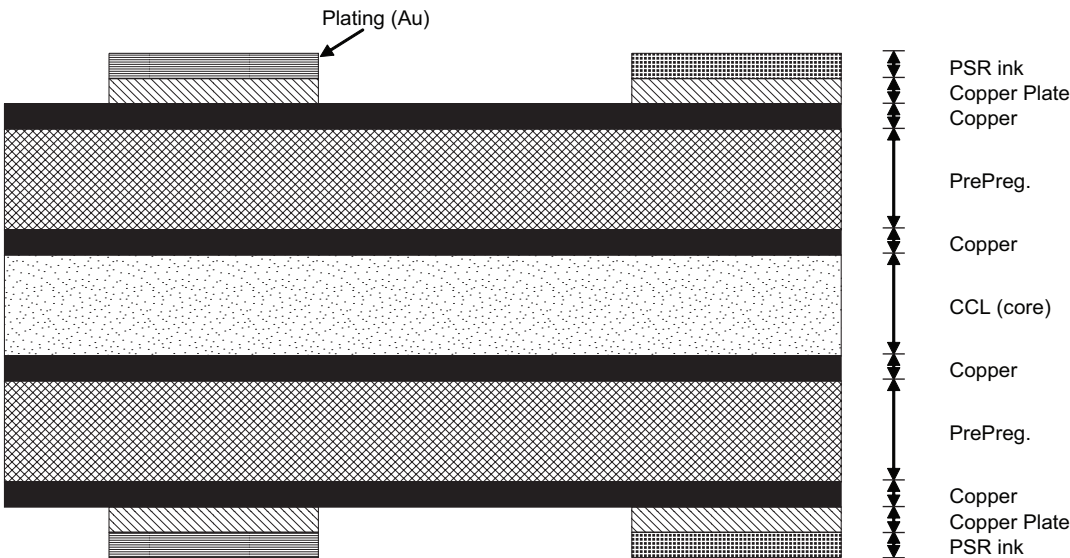


Figure 7-1. Four-Layer Circuit Board: Copper Steps in Layer Sequence

7.2 Speaker and Microphone Schematic

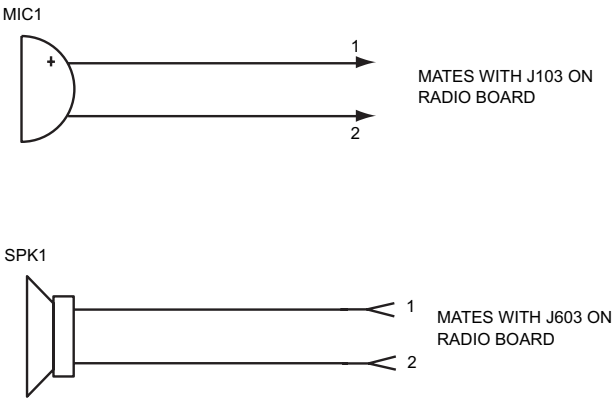


Figure 7-2. Speaker and Microphone Schematic

7.2.1 Speaker and Microphone Parts List

Reference Designator	Motorola Part No.	Description
MIC1	PMDN4139_R	Microphone
SPK1	PMDN4067BR	Speaker & Cable

Notes

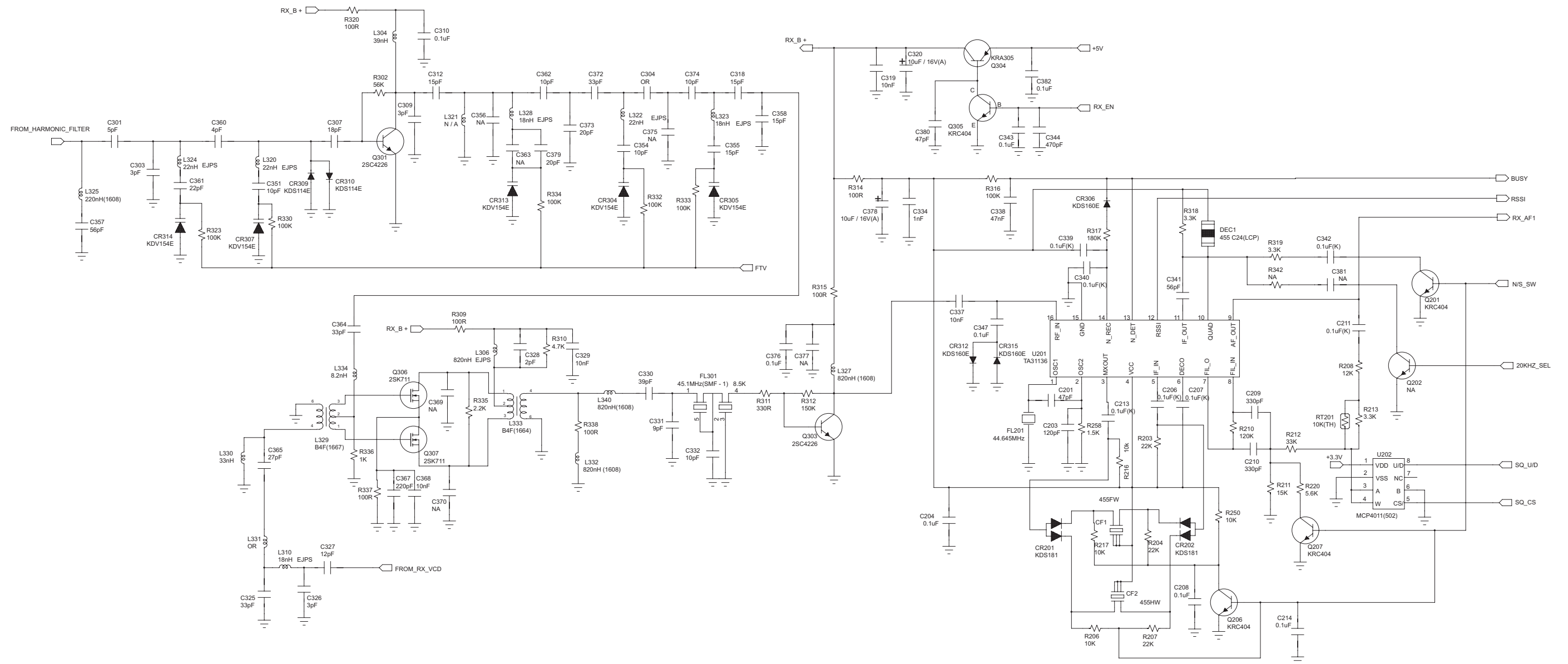


Figure 7-3. UHF2 (435–480 MHz) Receiver Schematic Diagram (Part No:E11-0767-0)



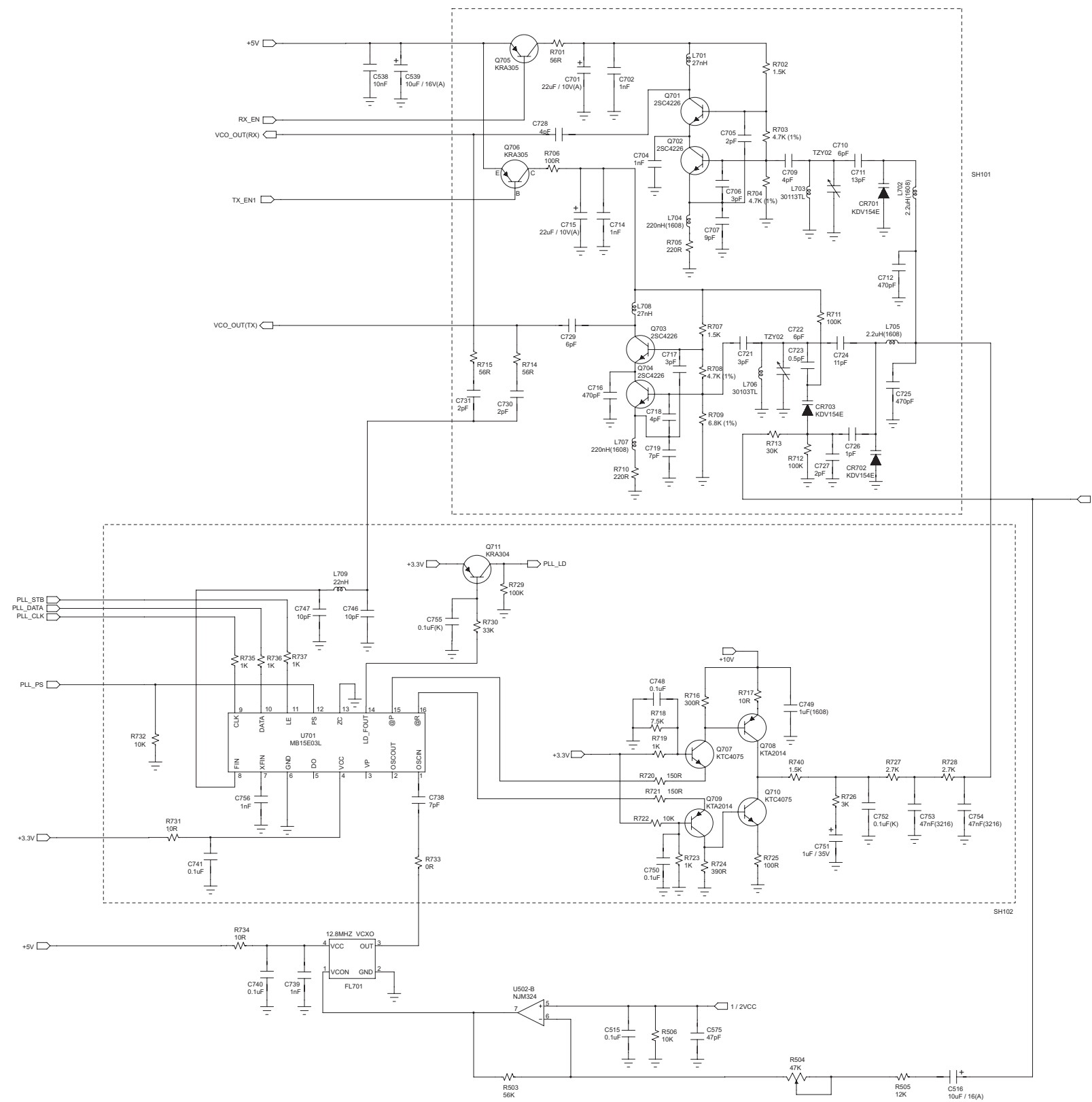


Figure 7-5. VCO and PLL Schematic Diagram

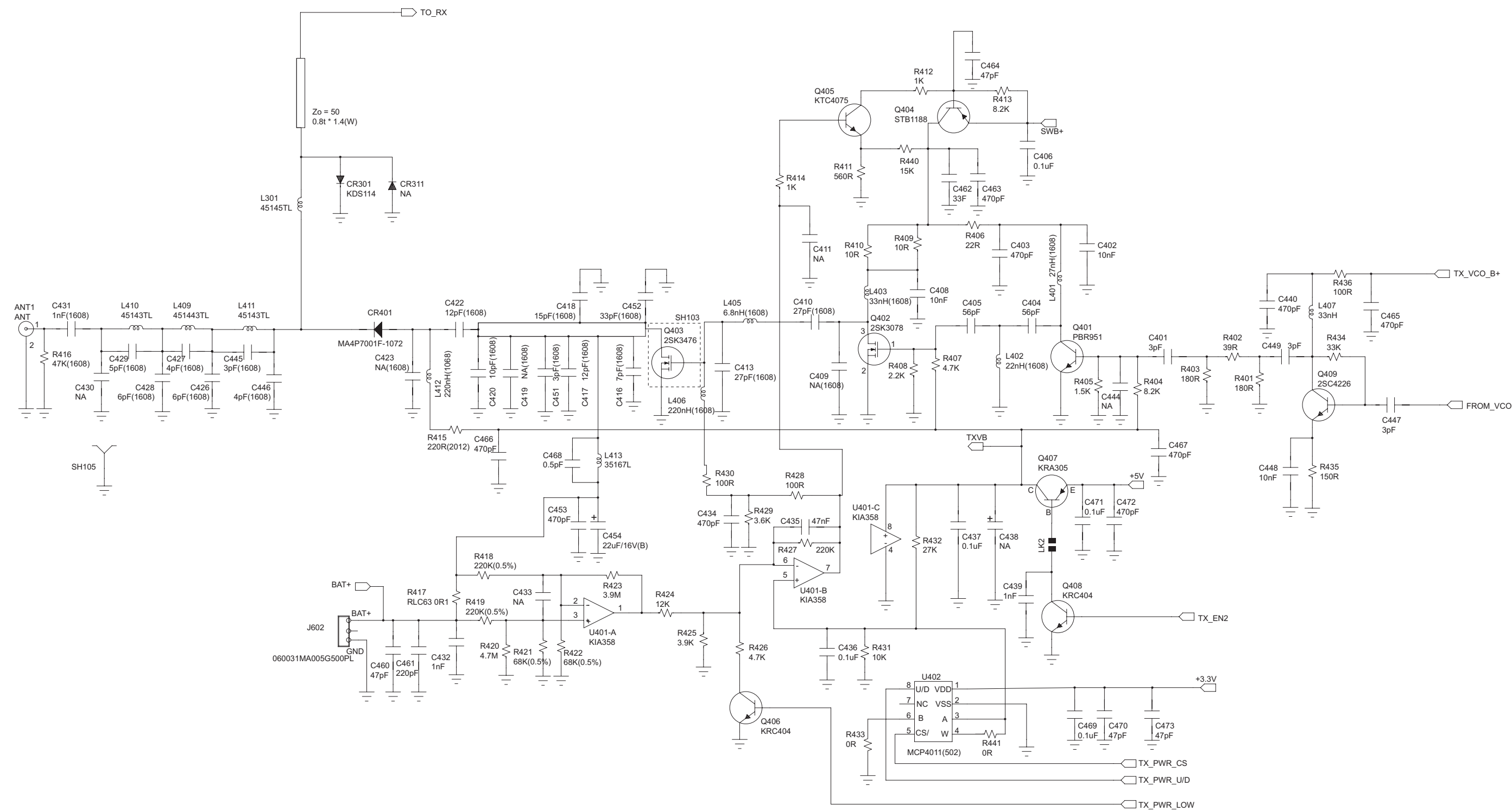


Figure 7-6. Transmitter Schematic Diagram

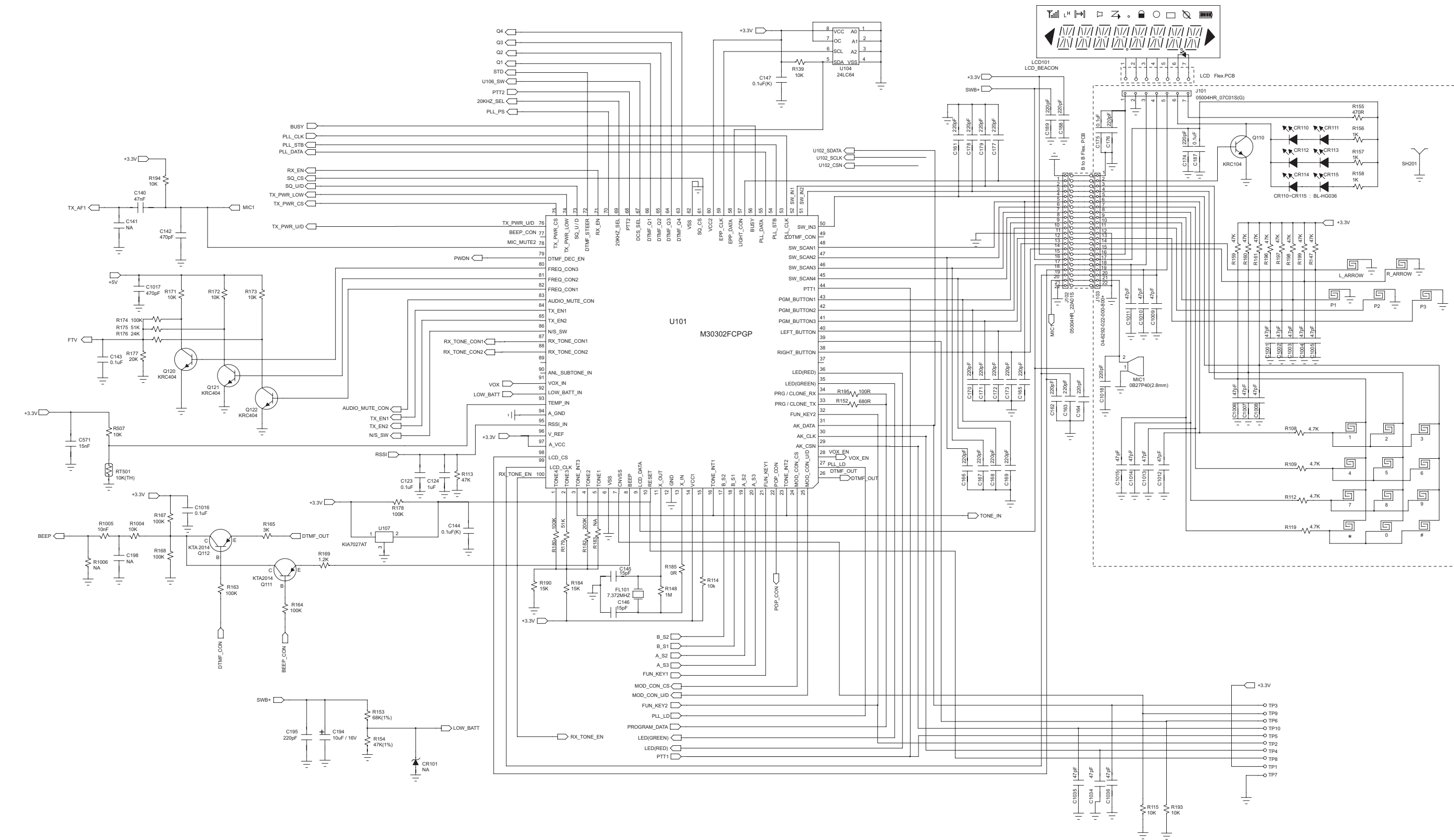


Figure 7-7. Microprocessor and Keypad Schematic Diagram

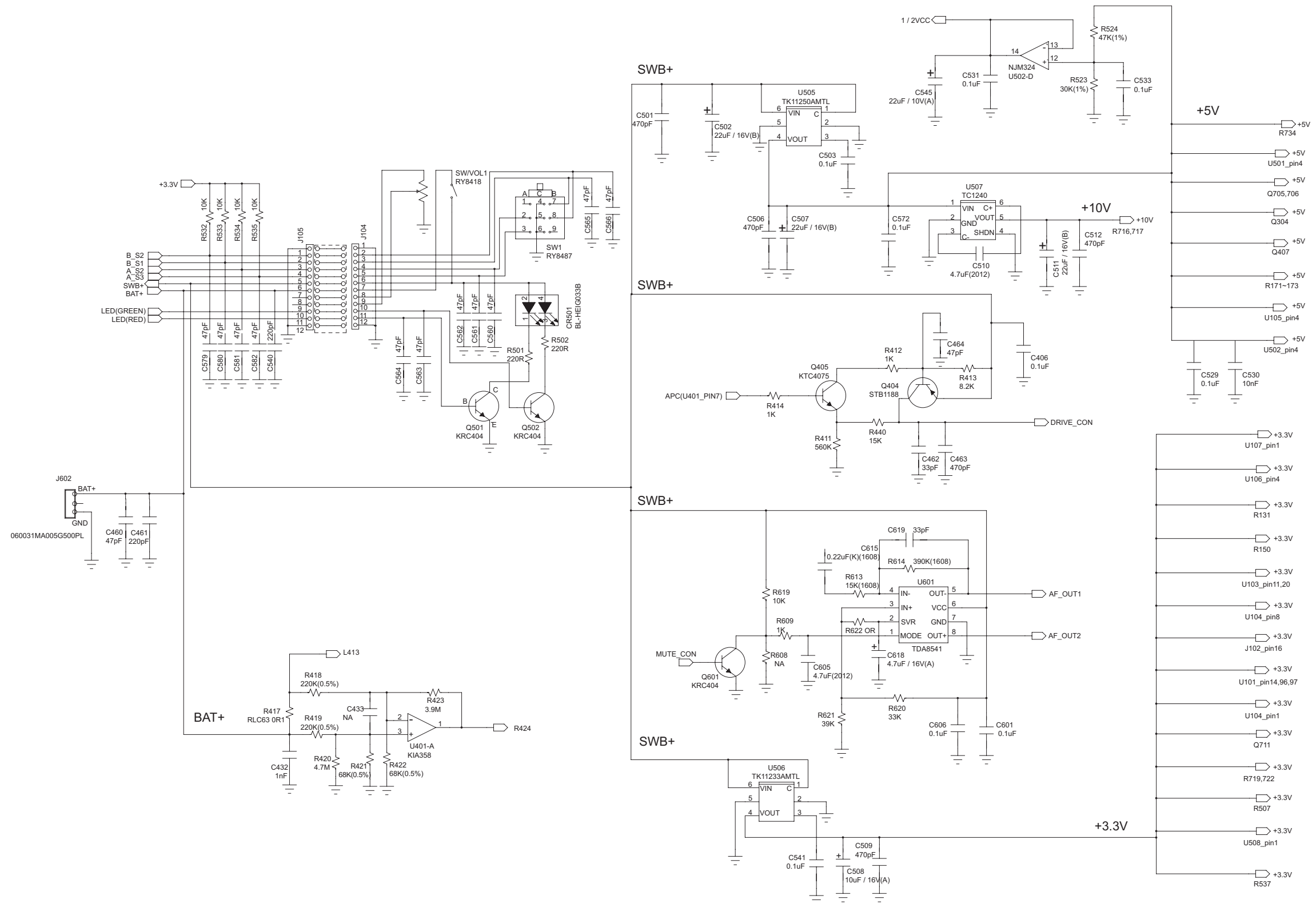


Figure 7-9. Switches and Battery Schematic Diagram



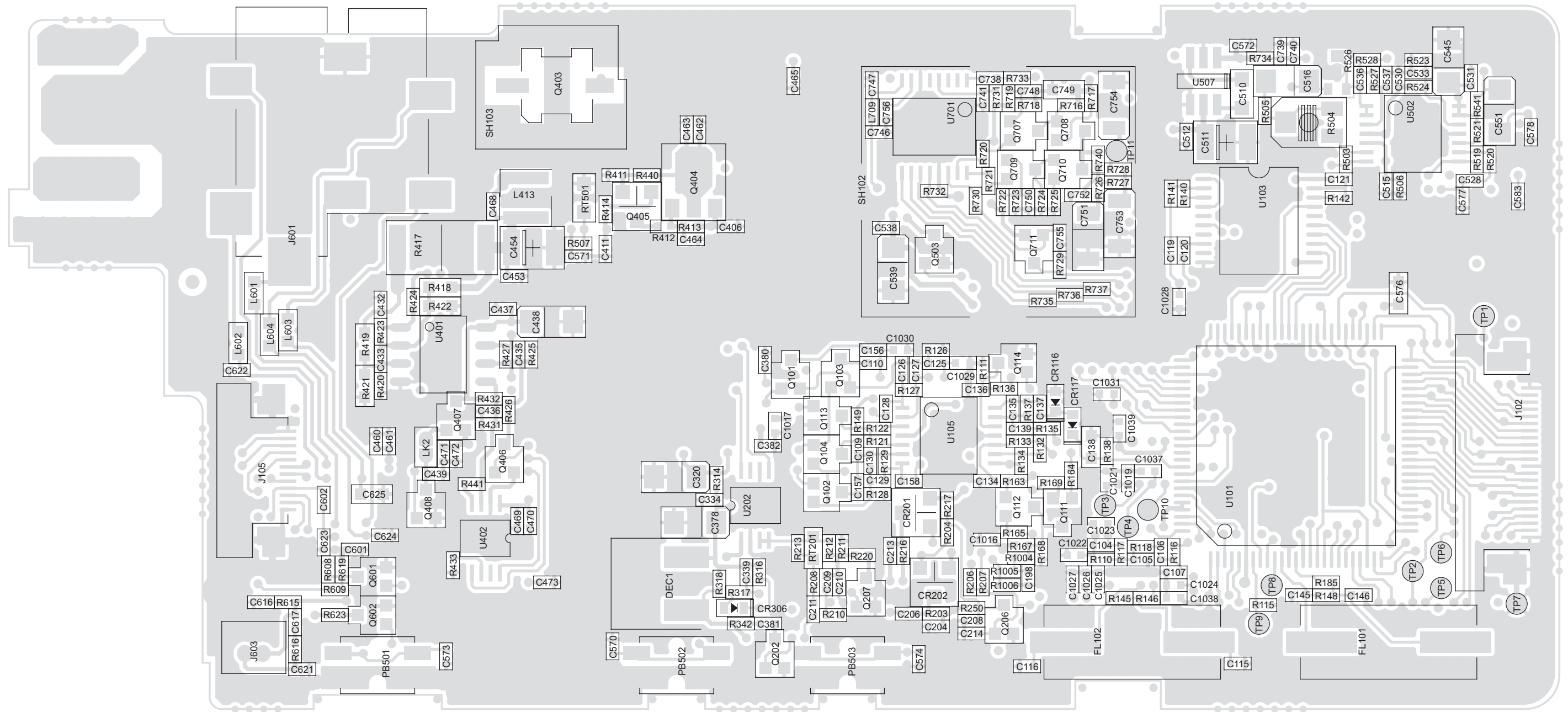


Figure 7-11. UHF2 (435–480 MHz) Mainboard Top Side: PCB No. E11-0767-0

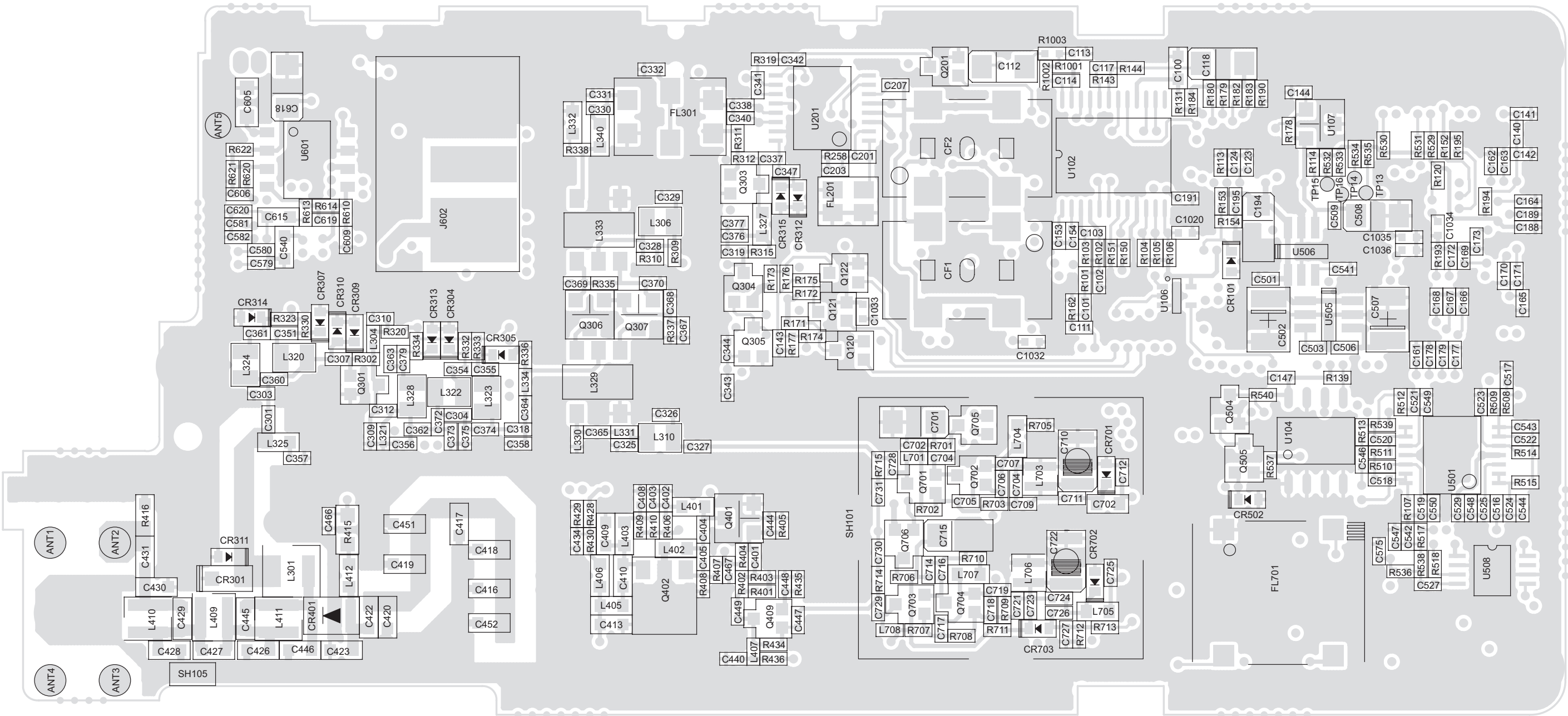


Figure 7-12. UHF2 (435–480 MHz) Mainboard Bottom Side: PCB No. E11-0767-0

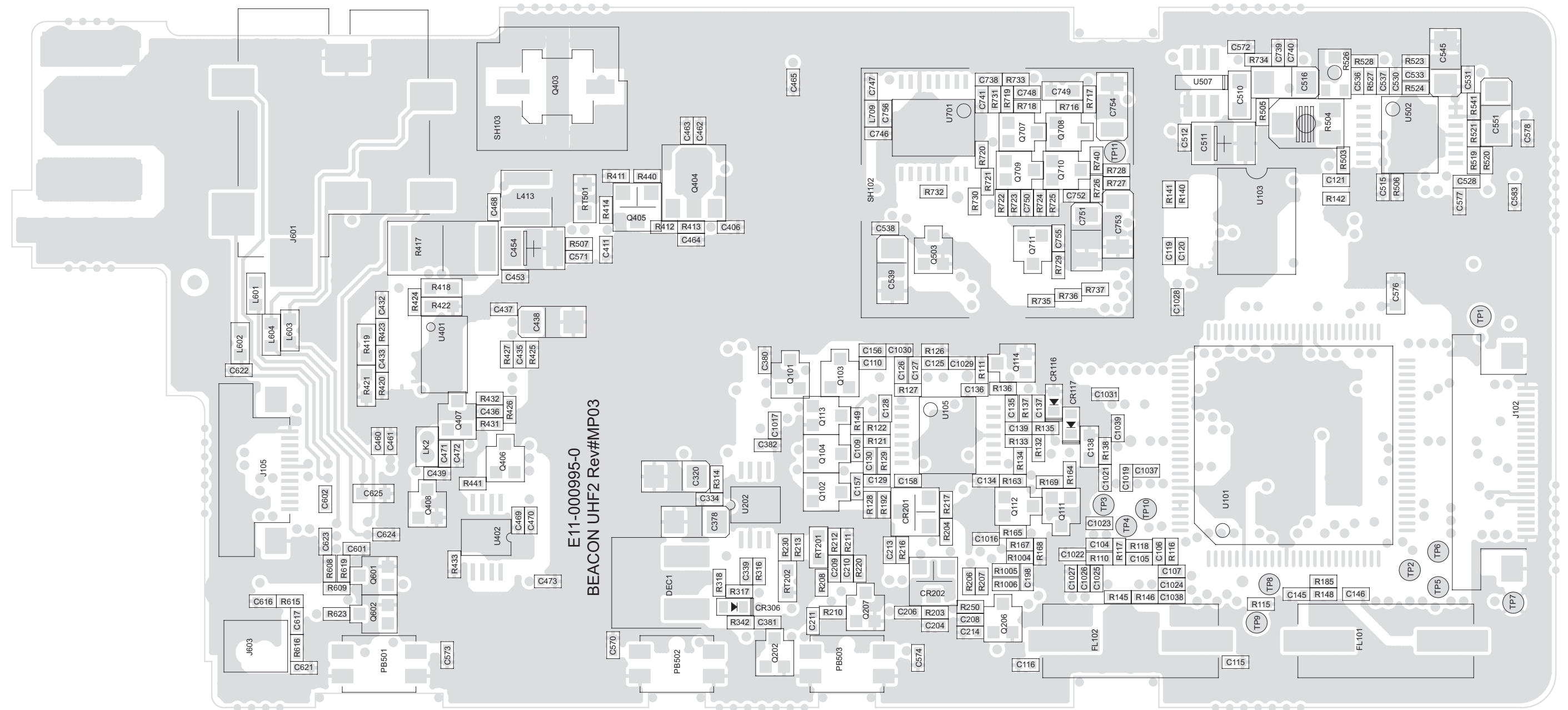


Figure 7-13. UHF2 (435–480 MHz) Mainboard Top Side: PCB No. E11-000995-00

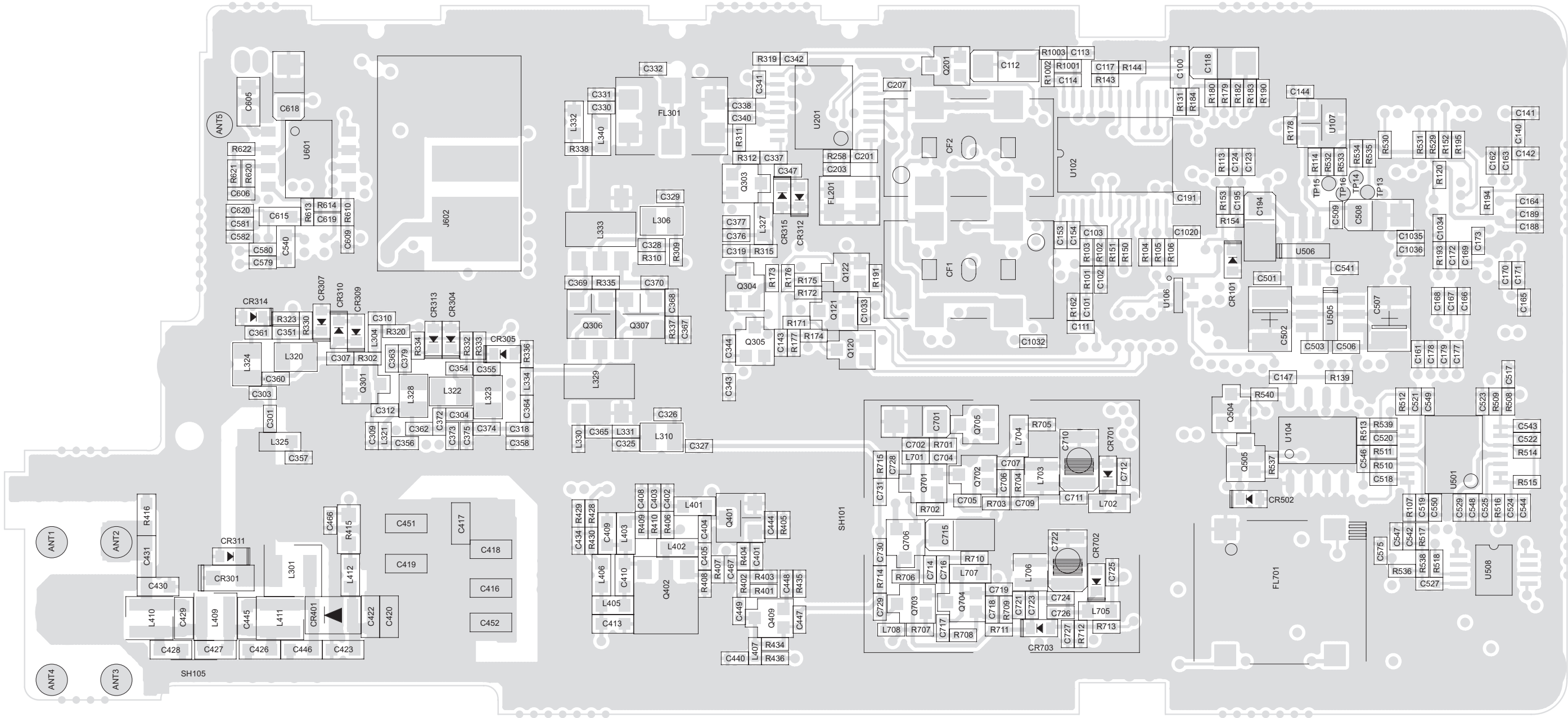


Figure 7-14. UHF2 (435–480 MHz) Mainboard Bottom Side: PCB No. E11-000995-00

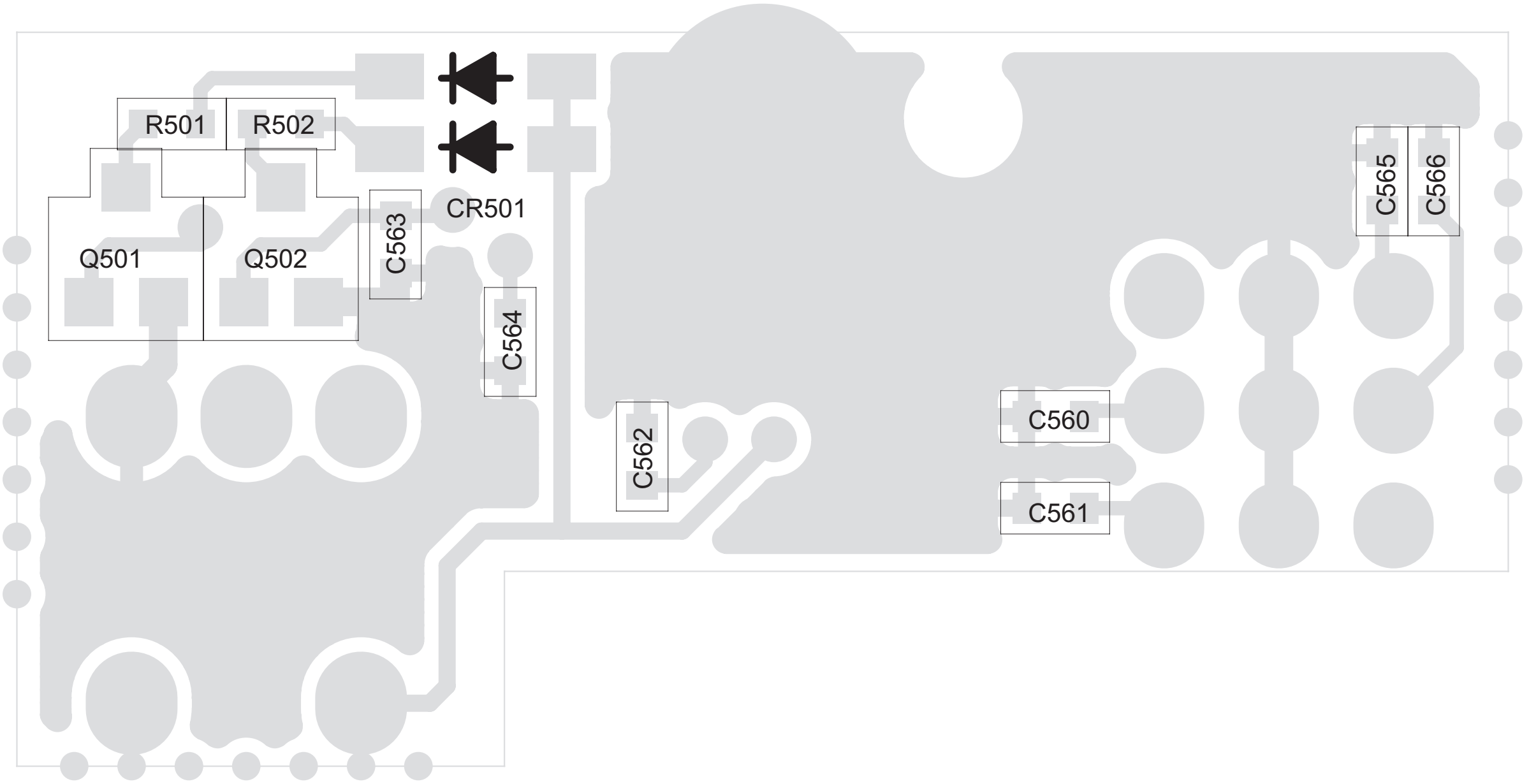


Figure 7-15. UHF2 (435–480 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

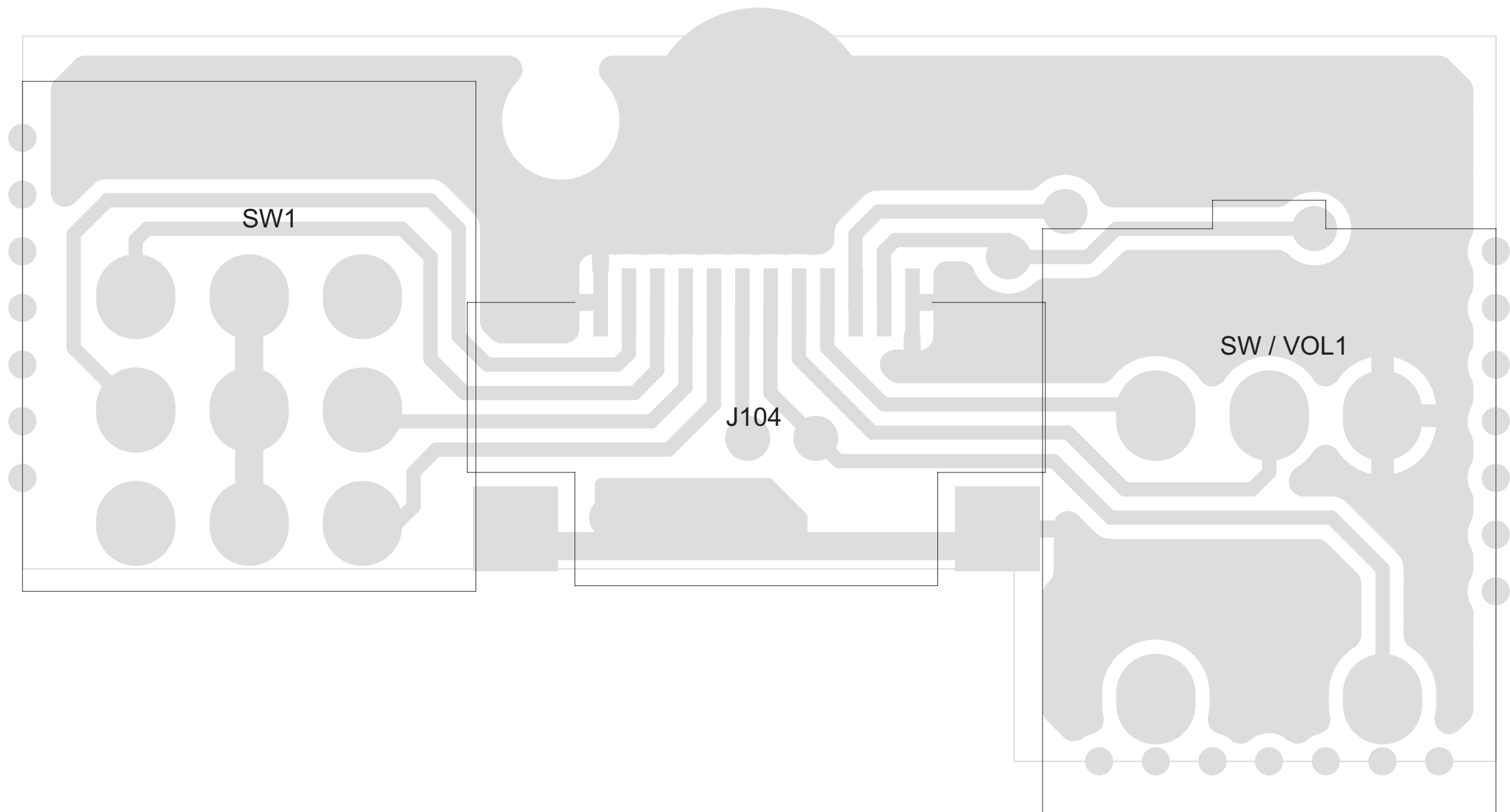


Figure 7-16. UHF2 (435–480 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

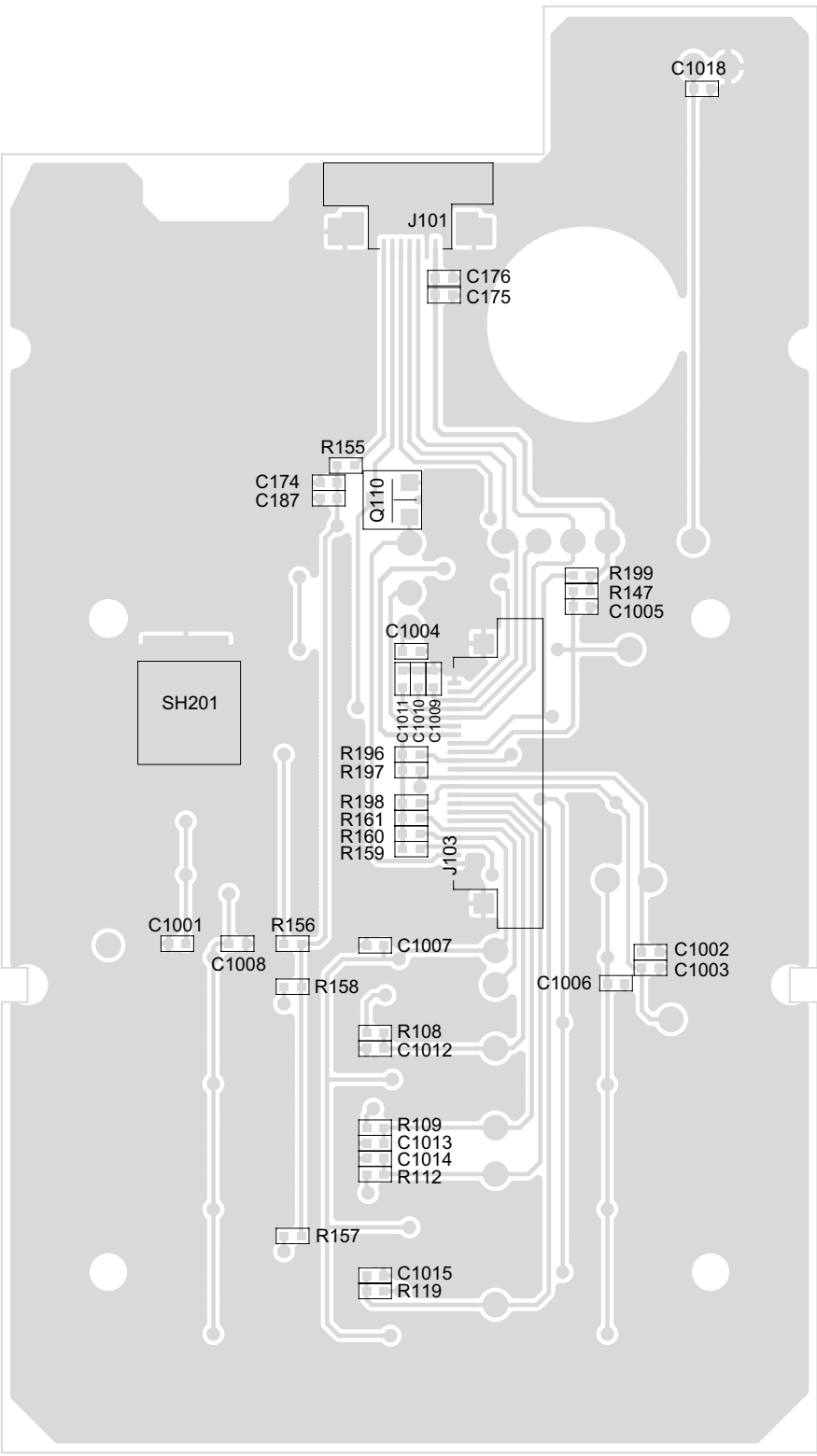
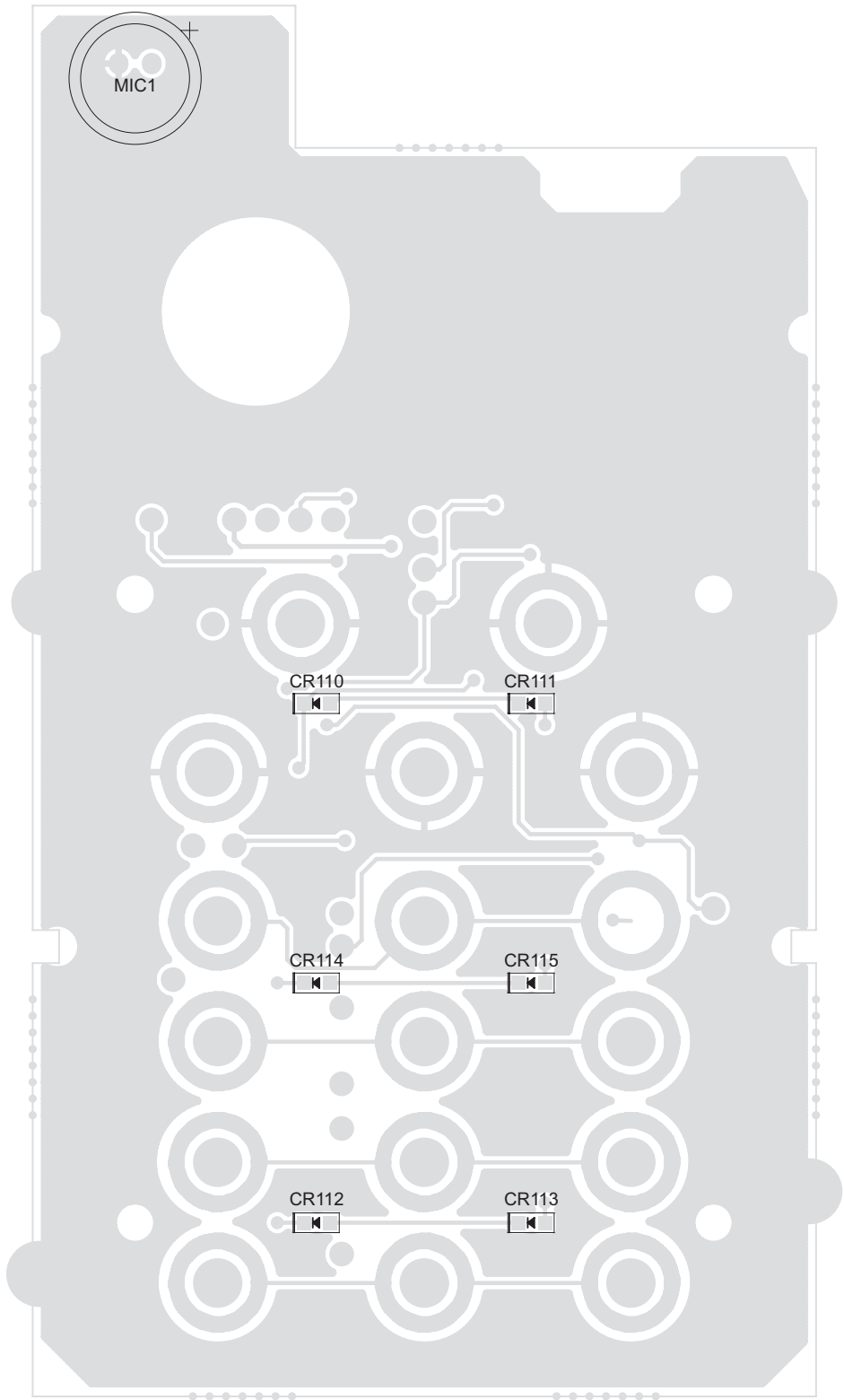


Figure 7-17. UHF2 (435–480 MHz) Keypad Board: PCB No. E11-000886-00

7.3.1 Parts List

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C123	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C161	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C165	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C166	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C167	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C168	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C170	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C171	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C176	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C177	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C178	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C179	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0097-0	Chip Cap, 1005 J 120PF
C204	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C301	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C303	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C307	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C310	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C312	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C318	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C326	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C327	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C329	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C330	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C331	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C332	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C341 C341 ²	TDK TDK	E02-0273-0 E02-000303-00	Chip Cap, 1005 J 56PF Chip Cap, 1005 J 82PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C343	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C347	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C351	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C355	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C356	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C358	TDK	E02-000177-00	Chip Cap, 1005 J 24PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C361	TDK	E02-0125-0	Chip Cap, 1005 D 18PF
C362	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C363	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C365	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
C376	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C378	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C379	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C383	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C385	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C386	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C387	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C388	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C390	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C404	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C405	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C406	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C409	TDK	E02-0127-0	Chip Cap, 1608J 18PF
C410	TDK	E02-0182-0	Chip Cap, 1608 J 27PF
C413	TDK	E02-0182-0	Chip Cap, 1608 J 27PF
C417	TDK	E02-0023-0	Chip Cap, 1608 C 8PF
C418	TDK	E02-0127-0	Chip Cap, 1608J 18PF
C419	TDK	E02-0018-0	Chip Cap, 1608 J 6PF
C420	TDK	E02-0094-0	Chip Cap, 1608 J 12PF
C422	TDK	E02-0023-0	Chip Cap, 1608 C 8PF
C426	TDK	E02-0020-0	Chip Cap, 1608 D 7PF
C427	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C428	TDK	E02-0020-0	Chip Cap, 1608 D 7PF
C429	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C431	TDK	E02-0043-0	Chip Cap, 1608 K 1000PF
C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C436	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C445	TDK	E02-0018-0	Chip Cap, 1608 C 6PF
C446	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C451	TDK	E02-0018-0	Chip Cap, 1608 C 6PF
C452	TDK	E02-0223-0	Chip Cap, 1608 J 39PF
C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C454	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C461	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C474	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C502	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C507	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C508	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C511	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)

Circuit Ref.	Supplier	Supplier Part No.	Description
C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C516	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C522	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C525	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C539	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C543	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C545	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C551	HITACHI	E02-0347-0	Chip Tantal, 10uF-M/10V(A)

Circuit Ref.	Supplier	Supplier Part No.	Description
C560	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C561	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C562	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C563	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C566	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C571	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C618	HITACHI	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)
C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF
C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C701	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C705	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C706	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C707	TDK	E02-0125-0	Chip Cap, 1005 D 18PF
C709	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C711	MURATA	E02-0907-0	Chip Cap, 1005 J 16PF 10V
C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C714	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C715	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C724	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C726	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C728	TDK	E02-0013-0	Chip Cap, 1005 C 3PF
C729	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C731	TDK	E02-0006-0	Chip Cap, 1005 C 2PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C751	HITACHI	E02-0339-0	Chip Tantal, 1uF-M/35V(A)
C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C753	PANASONIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C754	PANASONIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C1001	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1002	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1003	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1004	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1005	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1006	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1007	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1015	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1018	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
CF1 CF1 ²	BGTech BGTech	E17-0003-0 E17-000057-00	Ceramic Filter, ELFY455F CQ, Ceramic Filter, LTWC455F
CF2 CF2 ²	BGTech BGTech	E17-0004-0 E17-000058-00	Ceramic Filter, ELFY455H CQ, Ceramic Filter, LTWC455H
CR110	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR111	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR112 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR113 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR114 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR

Circuit Ref.	Supplier	Supplier Part No.	Description
CR115 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR116	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR117	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR201	KEC	E06-0005-0	DIODE, KDS 181
CR202	KEC	E06-0005-0	DIODE, KDS 181
CR301	KEC	E06-0002-0	DIODE, KDS-114
CR305	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
CR306	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR307	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
CR309	KEC	E06-0001-0	DIODE, KDS-114E (ESM)
CR310	KEC	E06-0001-0	DIODE, KDS-114E (ESM)
CR312	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR313	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
CR314	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
CR315	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR316	AGILENT	E06-0159-0	SCHOTTKY DIODE, HSMS-2829
CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T
CR501	BRIGHT LED	E07-0041-0	CHIP LED, BL-HEIG033B-TR
CR701	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
CR702	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
CR703	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
DEC1	BGTech	E17-0038-0	Descriminator, JTBC455C24(LCP)
FL101	BGTech	E08-0135-0	Crystal, 7.3728MHz (H:2.8mm) : Rev02
FL102	BGTech	E08-0036-0	Crystal, 3.5795MHz (H:2.8mm)
FL201	BGTech	E08-0043-0	Crystal, 44.645MHz (SMD)

Circuit Ref.	Supplier	Supplier Part No.	Description
FL301	BGTech	E17-0026-0	Crystal Filter, MCF 45.15S12.B (8.5KHz)
FL701	BGTech	E08-0055-0	VCTCXO, 12.8 MHZ
J101	BGTech	E10-0167-0	FPC CONNECTOR, 05004HR-07C01S(G)
J102	BGTech	E10-0173-0	FPC CONNECTOR, 05004HR-22A01S
J103	BGTech	E10-0171-0	FPC CONNECTOR, 04-6292-022-000-800+
J104	BGTech	E10-0169-0	FPC CONNECTOR, XF2M-1215-1A
J105	BGTech	E10-0349-0	FPC CONNECTOR, 52745-1297
J601	BGTech	E10-0014-0	SPK MIC JACK, 0980683Z01-D
J602	BGTech	E10-0081-0	BATTERY CONNECTOR, 060031MA005G500PL
J603	BGTech	E10-0099-0	CONNECTOR, 53047-0210
L301	DAERIM	E03-0063-0	Coil Air, 0.45-1.4-5TL
L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N
L306	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
L310	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L320	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L323	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L324	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L325	DELTA	9270022111820	Chip Ind, 2012 220NH G (Tolerance 2%)
L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
L328	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L329	BGTech	E03-0185-0	Balun Trans,#617PT-1667
L331	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L332	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L333	BGTech	E03-0185-0	Balun Trans,#617PT-1667

Circuit Ref.	Supplier	Supplier Part No.	Description
L334	TAIYOYUDEN	E03-0163-0	Chip Ind, 1005 J 8.2nH
L340	TAIYOYUDEN	E03-0180-0	Chip Ind, 1608 K 820NH
L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH
L402	TAIYOYUDEN	E03-0108-0	Chip Ind, 1608 J 22nH
L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ
L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH
L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
L409	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L410	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L411	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L413	DAERIM	E03-0051-0	Coil Air, 0.35-1.6-7TL
L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L603	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L706	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
MIC1	BGTech	E19-0009-0	C-MIC, 6.0*2.7/2.2KΩ,2V,-44±3dB, Pin type
PB501	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
PB502	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
PB503	BGTech	E09-0030-0	Tack Switch, EVQPUD02K

Circuit Ref.	Supplier	Supplier Part No.	Description
Q101	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q102	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q103	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q104	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q110	KEC	E05-0015-0	KRC 101S KEC BJT NPN Transistor
Q111	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q112	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q113	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q114	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q120	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q121	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q122	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q201	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q202	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q206	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q301	HITACHI	E05-0065-0	2SC4901 HITACH BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
Q308	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	Q704	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor	Q705	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor	R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor	Q706	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor	R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor	Q707	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor	R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor	Q708	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor	R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
Q405	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor	Q709	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor	R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
Q406	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q710	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor	R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
Q407	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor	Q711	KEC	E05-0027-0	KRA 304 KEC BJT PNP Transistor	R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
Q408	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R133	KAMAYA	E01-0362-0	Chip Res, 1005 J 680KΩ
Q409	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ
Q501	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ	R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
Q502	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
Q503	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
Q504	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
Q505	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor	R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ	R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
Q601	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ
Q602	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
Q701	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ	R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
Q702	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
Q703	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
				R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
				R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
				R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ	R147	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
				R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
				R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
				R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
				R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
								R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
								R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KΩ
								R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
								R155	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R156	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R160	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R176	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R177	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R197	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ
R204 R204 ²	KAMAYA KAMAYA	E01-0178-0 E01-0218-0	Chip Res, 1005 J 22KΩ Chip Res, 1005 J 3KΩ
R206 R206 ²	KAMAYA KAMAYA	E01-0056-1 E01-0218-0	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 3KΩ
R207 R207 ²	KAMAYA KAMAYA	E01-0178-0 E01-0056-1	Chip Res, 1005 J 22KΩ Chip Res, 1005 J 10KΩ
R208 R208 ²	KAMAYA KAMAYA	E01-0085-0 E01-000056-01	Chip Res, 1005 J 12KΩ Chip Res, 1005 J 10KΩ
R210 R210 ²	KAMAYA KAMAYA	E01-0089-1 E01-000358-00	Chip Res, 1005 J 120KΩ Chip Res, 1005 J 68KΩ
R211 R211 ²	KAMAYA KAMAYA	E01-0112-1 E01-000369-00	Chip Res, 1005 J 15KΩ Chip Res, 1005 J 7.5KΩ
R212 R212 ²	KAMAYA KAMAYA	E01-0295-1 E01-000157-00	Chip Res, 1005 J 47KΩ Chip Res, 1005 J 20KΩ
R213 R213 ²	KAMAYA KAMAYA	E01-0238-0 E01-000025-01	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 0Ω
R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R217 R217 ²	KAMAYA KAMAYA	E01-0056-1 E01-0218-0	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 3KΩ
R220 R220 ²	KAMAYA KAMAYA	E01-0263-1 E01-000263-01	Chip Res, 1005 J 3.9KΩ Chip Res, 1005 J 3.9KΩ
R230 ²	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R258 R258 ²	KAMAYA KAMAYA	E01-0107-0 E01-000386-00	Chip Res, 1005 J 1.5KΩ Chip Res, 1005 J 8.2KΩ
R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R309	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R310	KAMAYA	E01-0238-0	Chip Res, 1005 J 3.3KΩ
R311	KAMAYA	E01-0234-1	Chip Res, 1005 J 330Ω
R312	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R317	KAMAYA	E01-0143-0	Chip Res, 1005 J 180KΩ
R318 R318 ²	KAMAYA KAMAYA	E01-0201-0 E01-000218-00	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 3KΩ
R319 R319 ²	KAMAYA KAMAYA	E01-0201-0 E01-000201-00	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 2.7KΩ
R320	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R339	KAMAYA	E01-0146-0	Chip Res, 1005 J 1Ω
R341	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R342	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R343	TAIYOUDEN	E03-0308-0	Chip Ind, 1005 K 2R2
R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω
R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R405	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R406	KAMAYA	E01-0165-0	Chip Res, 1005 J 22Ω
R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220Ω

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ	R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω	R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390KΩ
R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ	R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ	R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ	R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ	R516	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ	R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ
R423	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R517	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ	R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ	R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R701	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ	R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R427	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ	R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ	R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ	R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ	R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 KΩ	R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ	R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ	R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ	R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8KΩ
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω	R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R501	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R715	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R502	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300Ω
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ	R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 KΩ	R538	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5KΩ
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ	R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R507	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ	R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ	R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390Ω
R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ
R1003	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
RT201 ³	TAIYO YUDEN	E01-000478-00	Thermistor, 103K
RT202 ²	TAIYO YUDEN	E01-001138-00	Thermistor, 102K
RT501	TAIYO YUDEN	E01-0478-0	Thermistor, 103K
SH101	BGTech	M06-0163-0	Shield Can - Vco,SPCC (0.3t),18.8x20.4(Inner), H=3,Drawing type
SH102	BGTech	M06-0173-0	Shield Can Tcxo, C5210P(0.3t),18.4x21(Inner), H=2.5
SH103	BGTech	M06-0268-0	Pa Shield Can, C5210P(0.3t), 9X11.6(outer), H=2.1
SH104	Motorola	PMDN4150AR	Finger Strip, T PCB
SH105	Motorola	PMDN4149AR	Finger Strip, TX

Circuit Ref.	Supplier	Supplier Part No.	Description
SH201	Motorola	PMDN4151AR	Finger Strip - Pair
SH202	Motorola	PMDN4152AR	Finger Strip - Single
SW/ VOL1	BGTech	E01-1032-0	Switch Volume, RY-8418
U101	BGTech	E04-0046-0	PU IC, M3030RFCPGP
U102	BGTech	E04-0114-0	AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	DTMF RECEIVER, MT88L70 ANR1
U104	BGTech	E04-0097-0	EEPROM IC, 24LC64
U105	JRC	E04-0185-0	OP AMP, NJM324 V
U106	BGTech	E04-0211-0	Analog SW IC, TC7S66FU
U107	KEC	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201 U201 ²	BGTech BGTech	E04-0195-0 E04-000890-00	FM IC, TA31136 AGAMEM, FM IC, AA32416
U202	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358 F
U402	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	OP AMP, NJM324 V
U502	JRC	E04-0185-0	OP AMP, NJM324 V
U505	BGTech	E04-0150-0	REGULATOR IC, TK11250CMCL-G
U506	BGTech	E04-0588-0	REGULATOR IC, TK11233CMCL-G
U507	BGTech	E04-0207-0	VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	PLL IC, MB15E03SLPFV1-G-BND-EF-6
PCB1	BGTech	E11-0767-0	Main PCB, FR4 4 Layer PCB Rev.#MP02
PCB1 ²	BGTech	E11-000995-00	Main PCB, FR4 4 Layer PCB Rev#MP03

Circuit Ref.	Supplier	Supplier Part No.	Description
SUB PCB1	BGTech	E11-000002-02	Sub PCB, 1.2T 2Layer
KEY PCB1	BGTech	E11-000886-00	Key PCB, 1.2T 2Layer

- Note:
1.

Not for PMUE3144AAE & PMUE3137AAE
2.

Only for PCB No. *E11-000995-00*
3.

Not applicable for PCB No. *E11-000995-00*

7.4 Circuit Board/Schematic Diagram and Parts List (UHF2 R&TTE: 435–470 MHz)

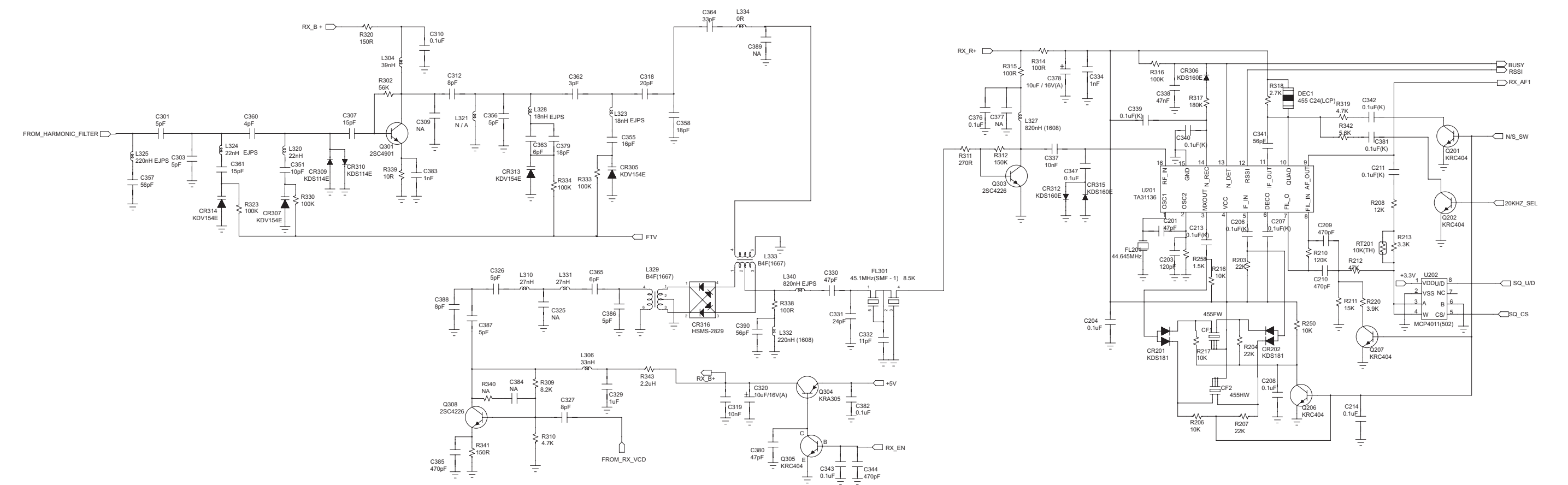


Figure 7-18. UHF2 R&TTE (435–470 MHz) Receiver Schematic Diagram (Part No:E11-0763-0)

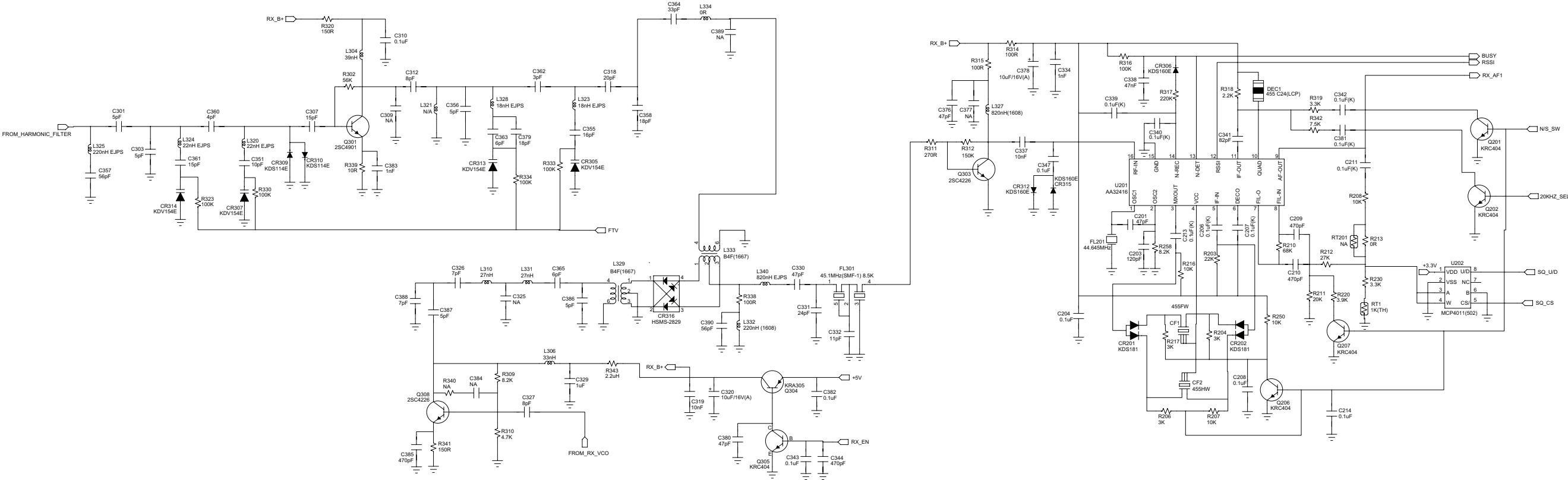


Figure 7-19. R&TTE (435–470 MHz) Receiver Schematic Diagram (Part No:E11-000996-00)

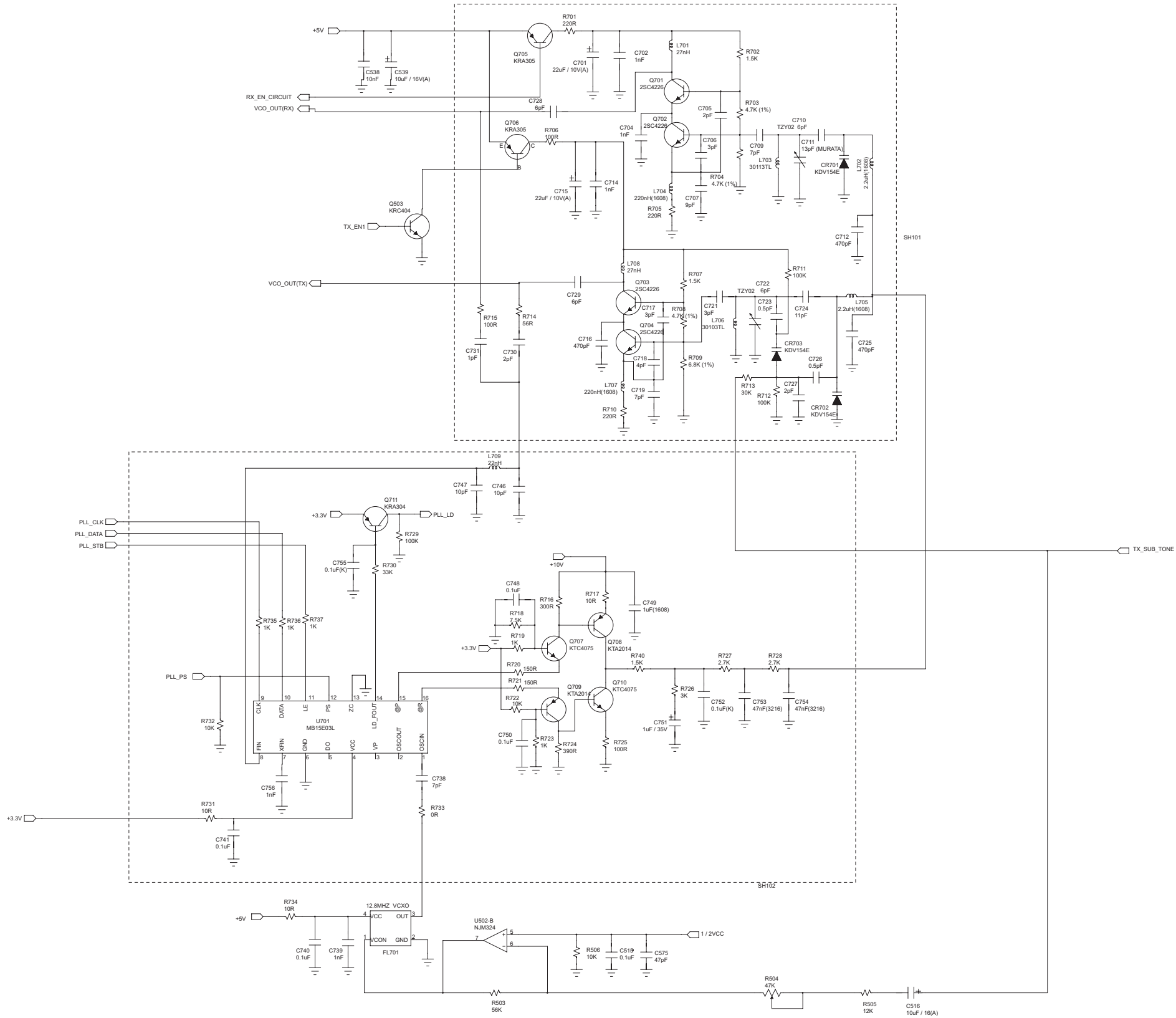


Figure 7-20. VCO and PLL Schematic Diagram

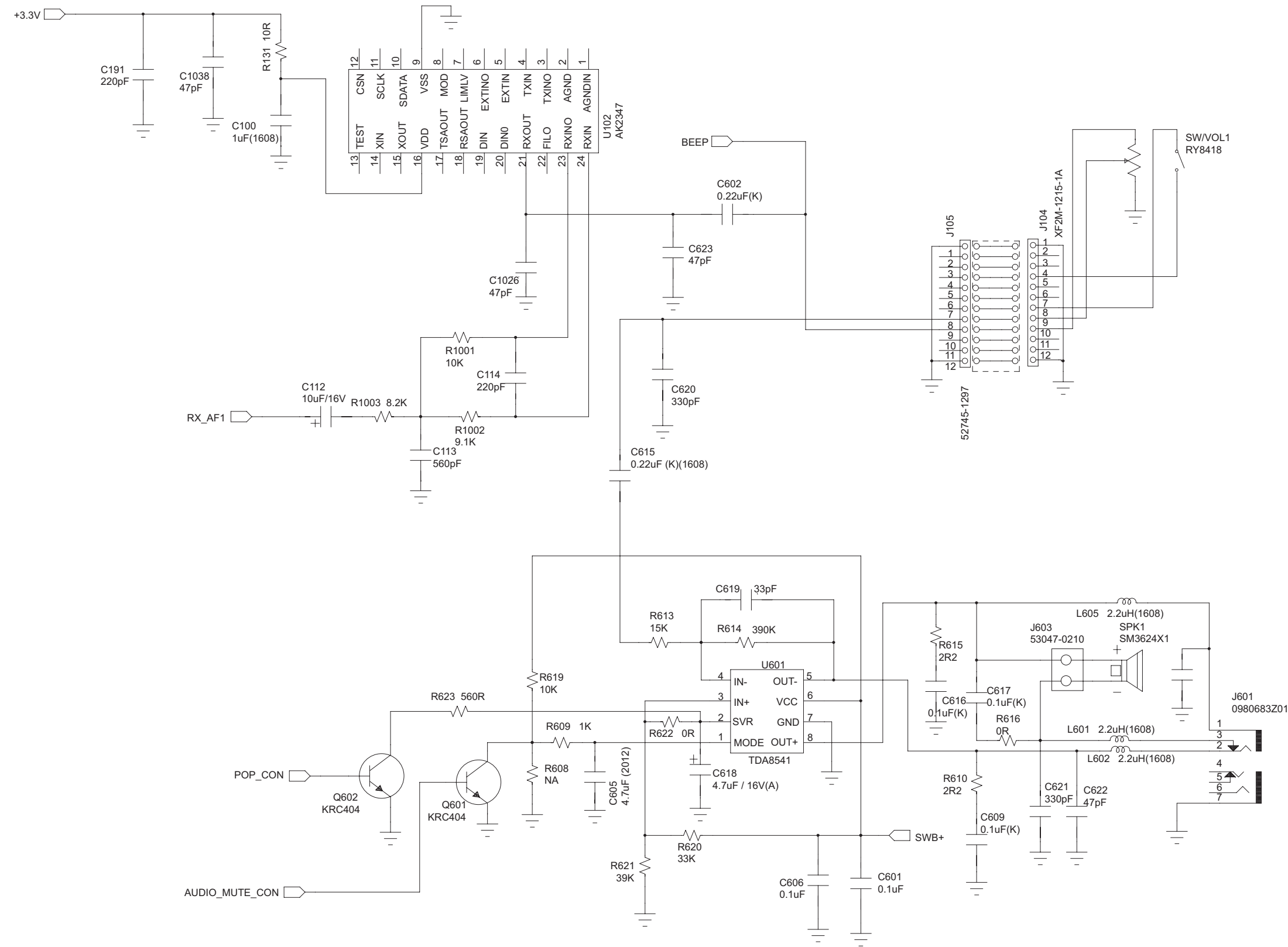


Figure 7-23. Audio Power Amplifier and External Audio Schematic Diagram

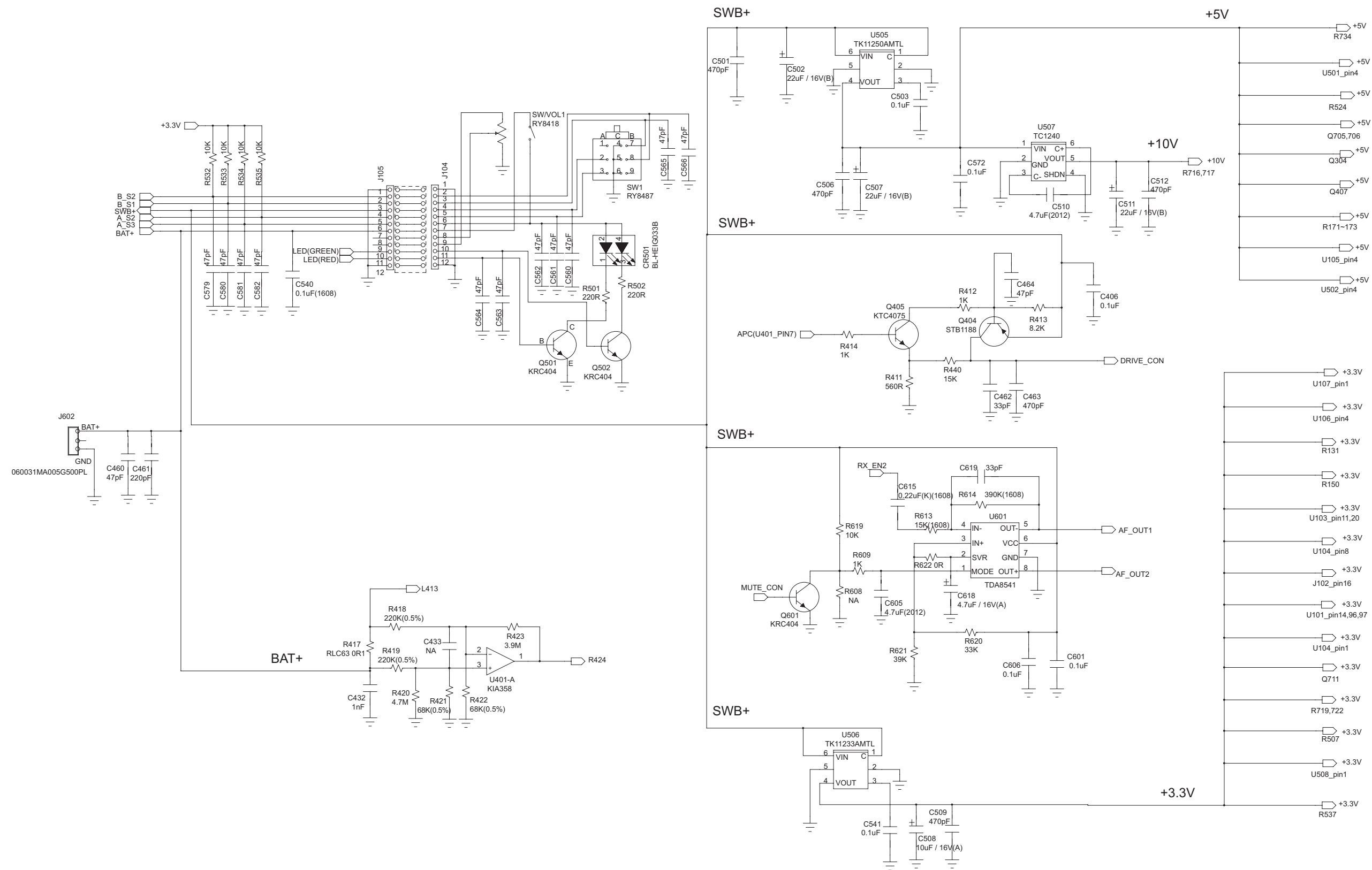


Figure 7-24. Switches and Battery Schematic Diagram



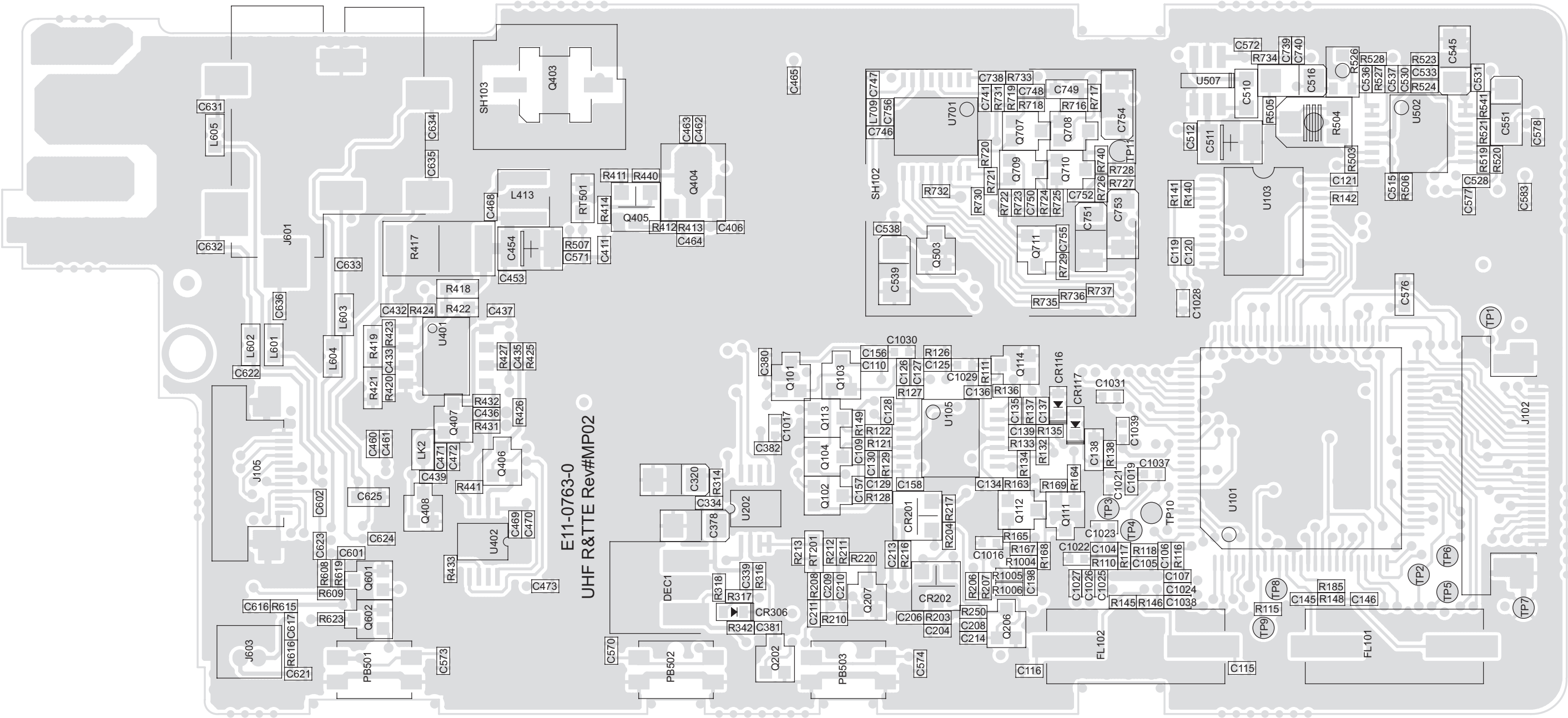


Figure 7-26. UHF2 R&TTE (435–470 MHz) Mainboard Top Side: PCB No. E11-0763-0

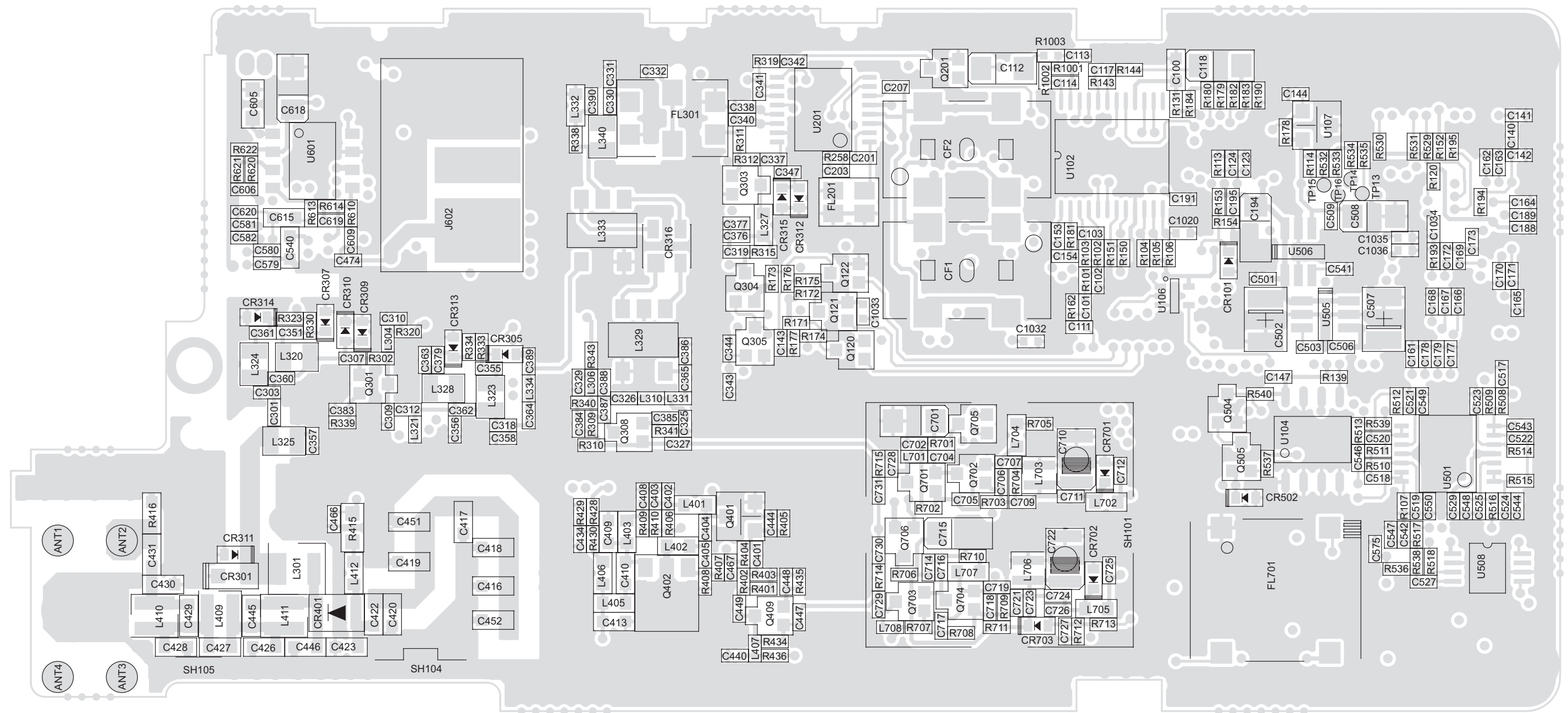


Figure 7-27. UHF2 R&TTE (435–470 MHz) Mainboard Bottom Side: PCB No. E11-0763-0

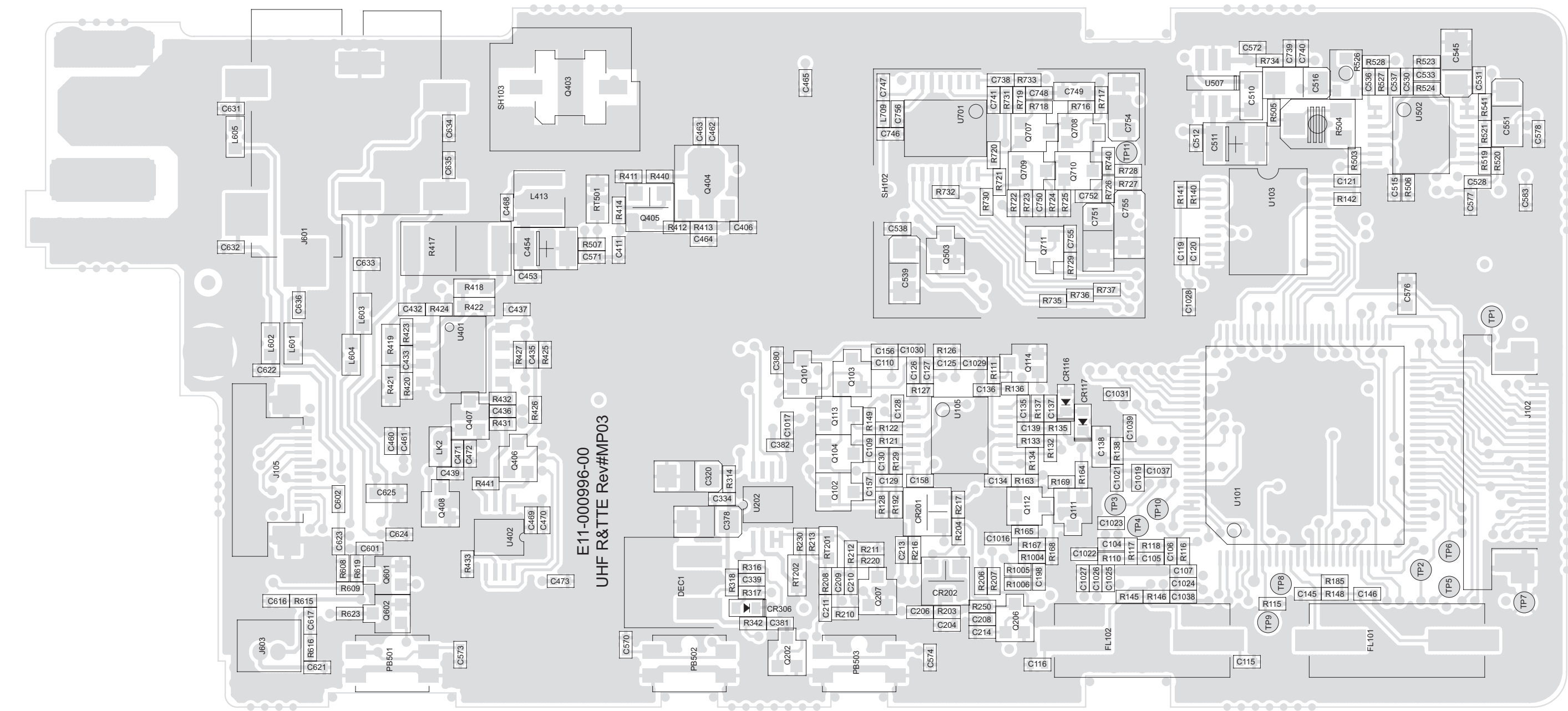


Figure 7-28. UHF2 R&TTE (435–470 MHz) Mainboard Top Side: PCB No. E11-000996-00

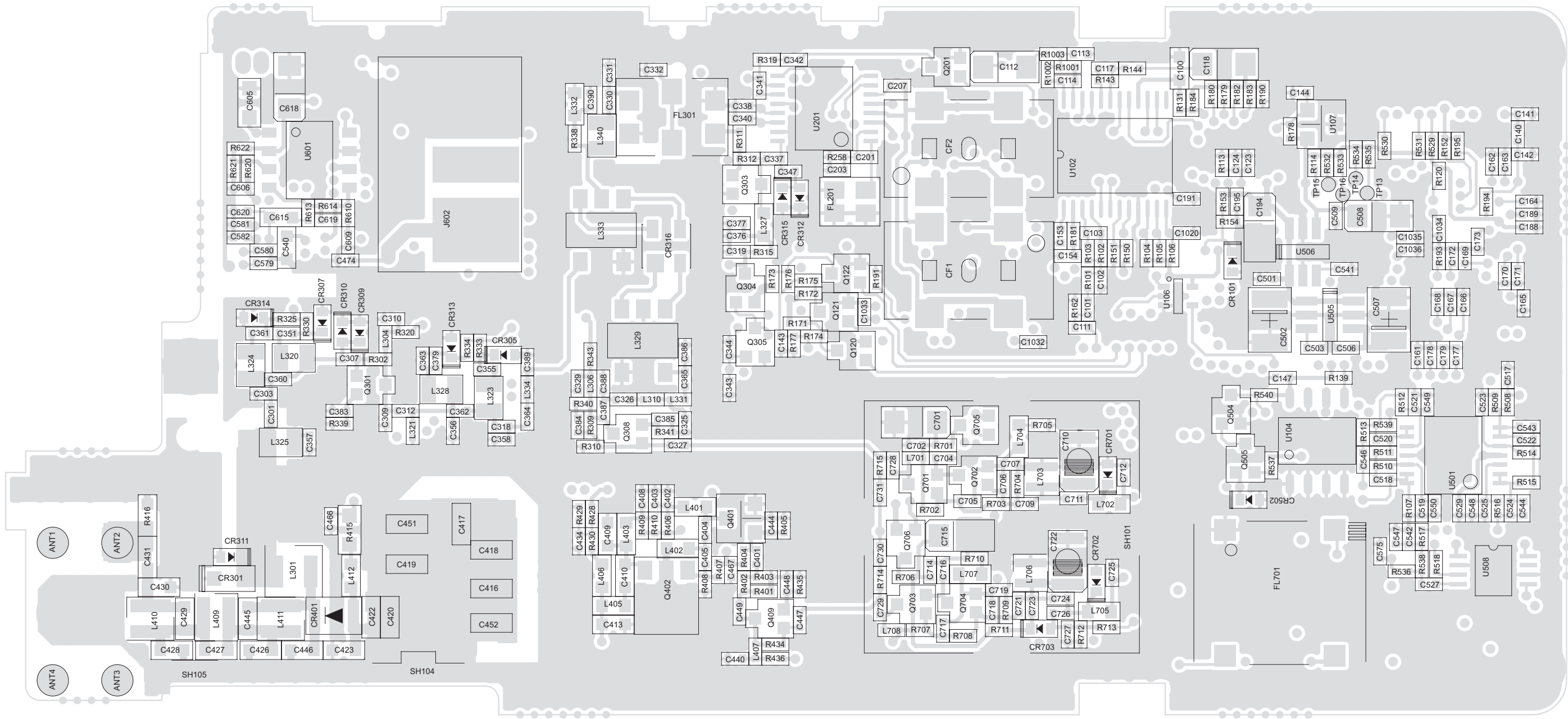


Figure 7-29. UHF2 R&TTE (435–470 MHz) Mainboard Bottom Side: PCB No. E11-000996-00

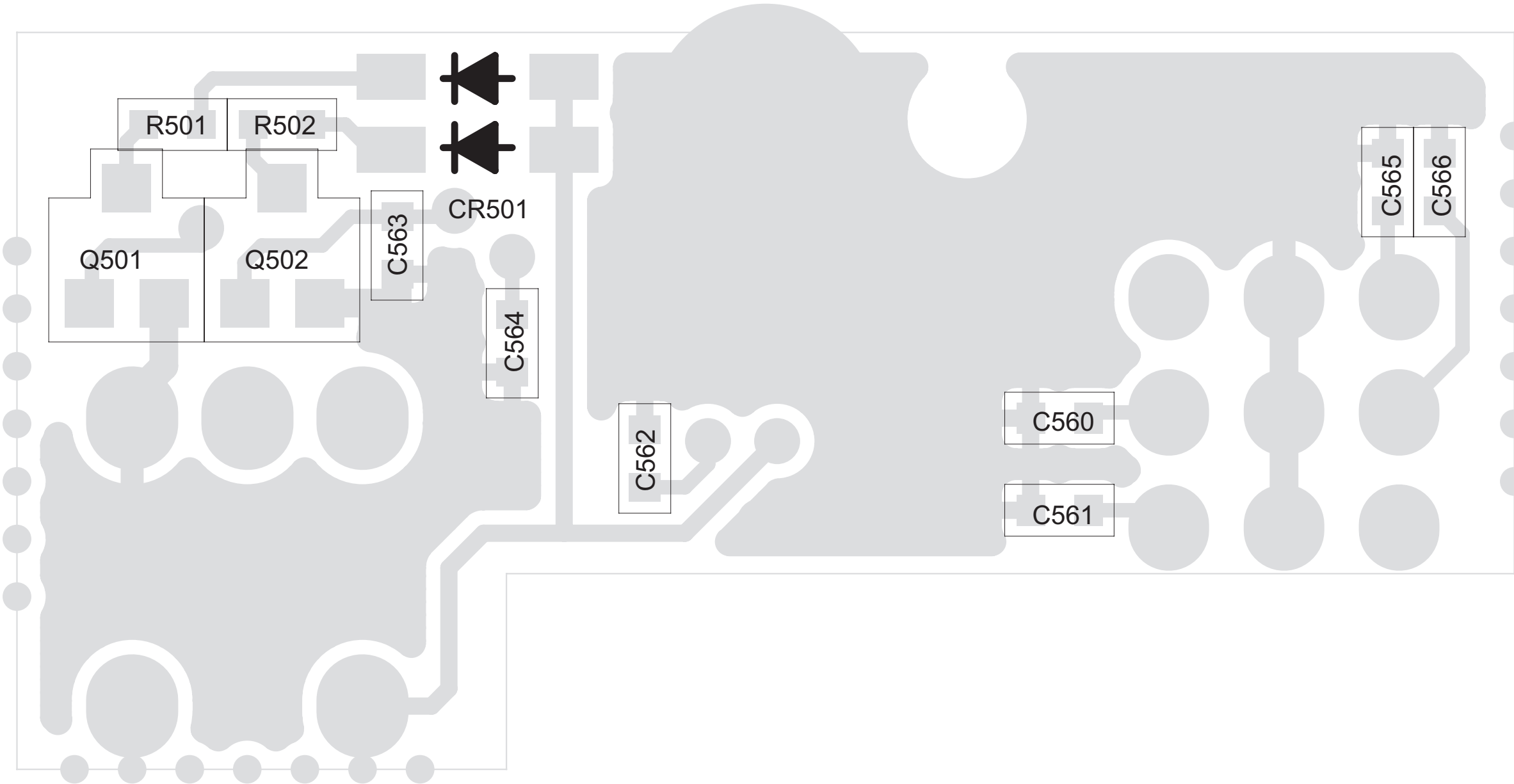


Figure 7-30. UHF2 R&TTE (435–470 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

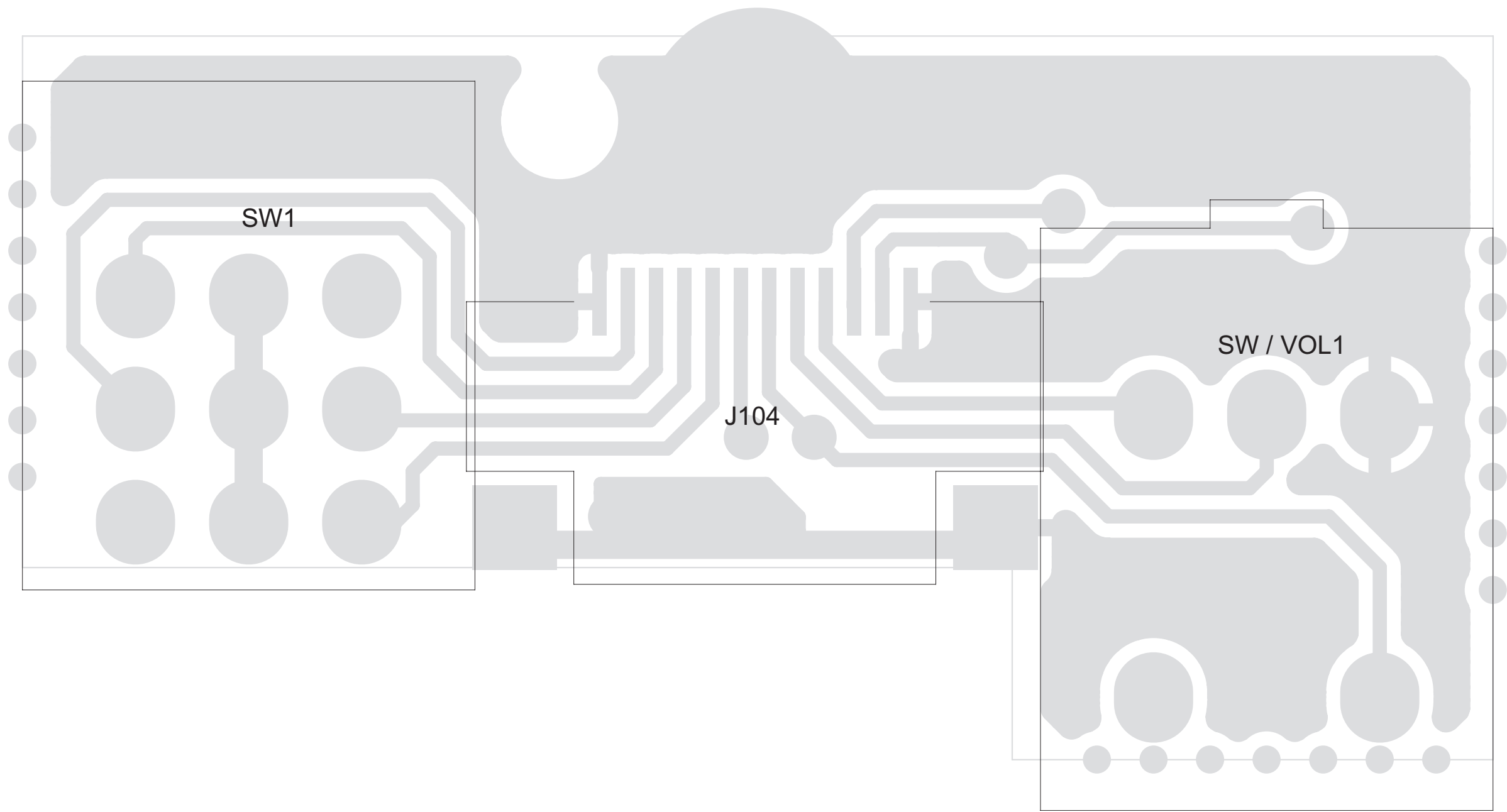


Figure 7-31. UHF2 R&TTE (435–470 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

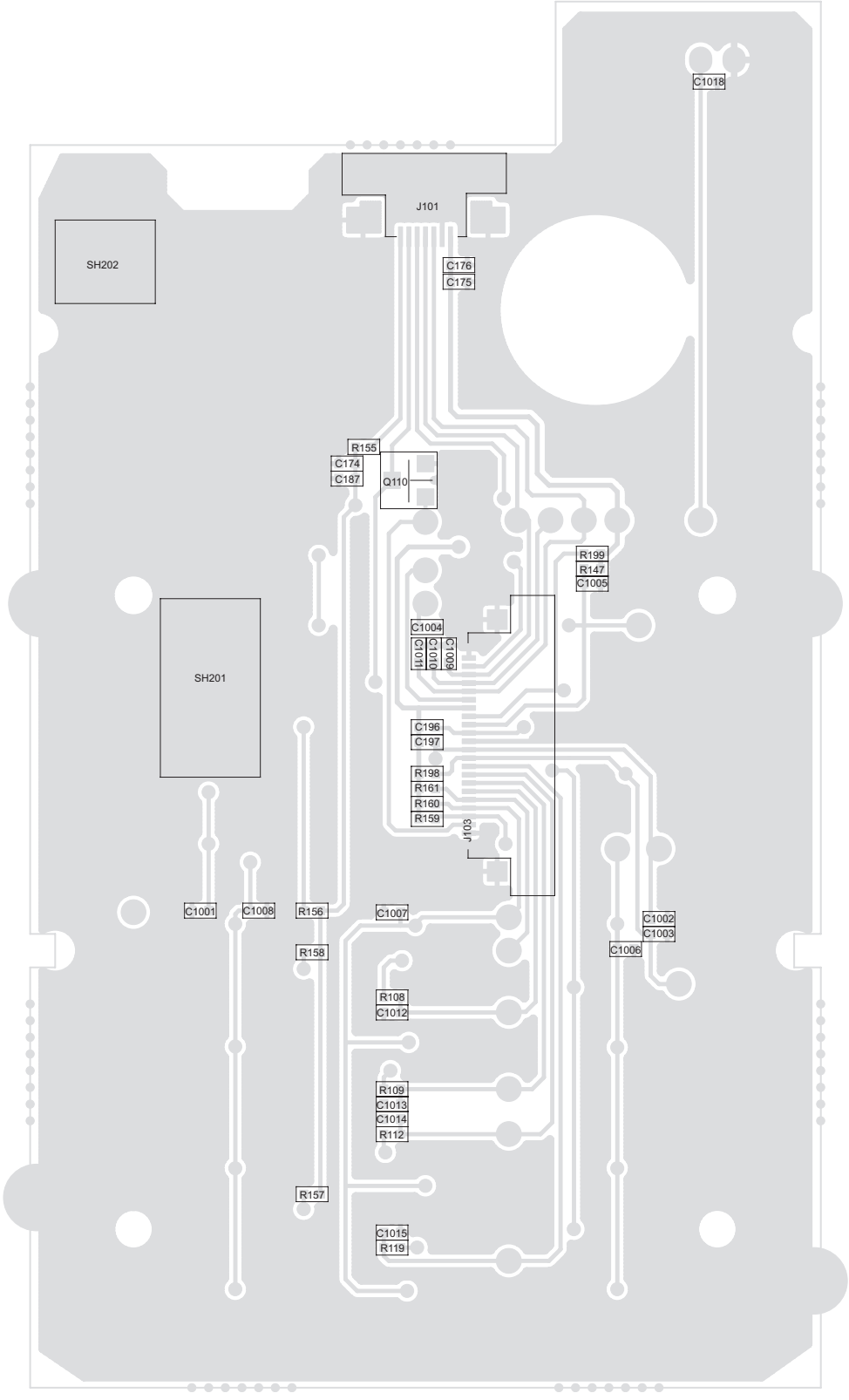
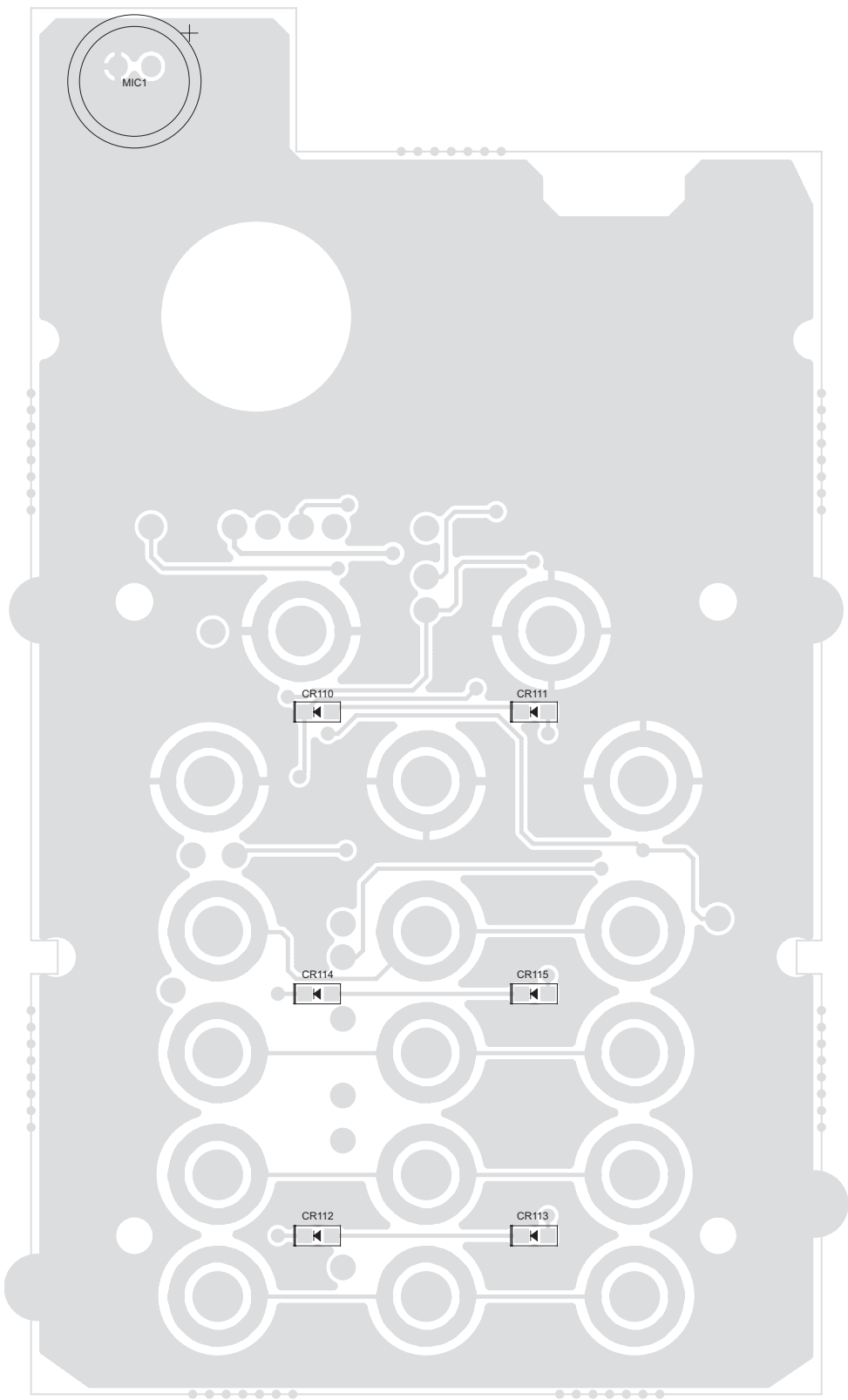


Figure 7-32. UHF2 R&TTE (435–470 MHz) Keypad Board: PCB No. E11-000886-00

7.4.1 Parts List

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C123	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C161	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C165	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C166	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C167	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C168	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C170	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C171	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176	TDK	E02-0153-0	Chip Cap, 1005 J 220PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C177	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C178	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C179	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0303-0	Chip Cap, 1005 J 82PF
C204	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C301	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C303	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C307	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C310	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C312	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C318	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C326	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C327	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C329	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C330	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C331	TDK	E02-000177-00	Chip Cap, 1005 J 24PF	C386	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C445	TDK	E02-0018-0	Chip Cap, 1608 C 6PF
C332	MURATA	E02-0091-0	Chip Cap, 1005 J 11PF 10V	C387	TDK	E02-0021-0	Chip Cap, 1005 D 8PF	C446	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C388	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C390	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF	C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C451	TDK	E02-0018-0	Chip Cap, 1608 C 6PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C452	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C341	TDK	E02-0273-0	Chip Cap, 1005 J 56PF Chip Cap, 1005 J 82PF	C404	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C341 ²		E02-000303-00		C405	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C454	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C406	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C343	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C461	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C409	TDK	E02-0127-0	Chip Cap, 1608J 18PF	C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C347	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C410	TDK	E02-0223-0	Chip Cap, 1608 J 39PF	C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C351	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C413	TDK	E02-0182-0	Chip Cap, 1608 J 27PF	C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C355	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C416	TDK	E02-0023-0	Chip Cap, 1608 C 8PF	C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C356	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C417	TDK	E02-0023-0	Chip Cap, 1608 C 8PF	C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C418	TDK	E02-0109-0	Chip Cap, 1608 J 15PF	C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C358	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C419	TDK	E02-0018-0	Chip Cap, 1608 J 6PF	C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF	C420	TDK	E02-0094-0	Chip Cap, 1608 J 12PF	C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C361	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C422	TDK	E02-0023-0	Chip Cap, 1608 C 8PF	C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C362	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C426	TDK	E02-0020-0	Chip Cap, 1608 D 7PF	C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C363	TDK	E02-0003-0	Chip Cap, 1005 C 1PF	C427	TDK	E02-0012-0	Chip Cap, 1608 C 4PF	C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C428	TDK	E02-0020-0	Chip Cap, 1608 D 7PF	C474	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C365	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	C429	TDK	E02-0010-0	Chip Cap, 1608 C 3PF	C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C376	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C431	TDK	E02-0043-0	Chip Cap, 1608 K 1000PF	C502	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C378	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C379	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF	C507	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C436	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C508	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C383	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C385	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C511	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)

Circuit Ref.	Supplier	Supplier Part No.	Description
C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C516	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C522	TDK	E02-0308-0	Chip Cap, 1005 K 822PF
C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C525	TDK	E02-0213-0	Chip Cap, 1005 K 332PF
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C539	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C543	TDK	E02-0308-0	Chip Cap, 1005 K 822PF
C545	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C551	HITACHI	E02-0347-0	Chip Tantal, 10uF-M/10V(A)

Circuit Ref.	Supplier	Supplier Part No.	Description
C560	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C561	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C562	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C563	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C566	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C571	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C618	HITACHI	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)
C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF
C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C701	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C705	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C706	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C707	TDK	E02-0125-0	Chip Cap, 1005 D 18PF
C709	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C711	MURATA	E02-0907-0	Chip Cap, 1005 J 16PF 10V
C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C714	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C715	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C724	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C726	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C728	TDK	E02-0013-0	Chip Cap, 1005 C 3PF
C729	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C731	TDK	E02-0006-0	Chip Cap, 1005 C 2PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF	C1018	TDK	E02-0153-0	Chip Cap, 1005 J 220PF	CR115 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR116	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR117	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR201	KEC	E06-0005-0	DIODE, KDS 181
C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR202	KEC	E06-0005-0	DIODE, KDS 181
C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR301	KEC	E06-0002-0	DIODE, KDS-114
C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR305	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF	C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR306	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR307	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C751	HITACHI	E02-0339-0	Chip Tantal, 1uF-M/35V(A)	C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR309	KEC	E06-0001-0	DIODE, KDS-114E (ESM)
C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR310	KEC	E06-0001-0	DIODE, KDS-114E (ESM)
C753	PANASONIC	E02-0322-0	Film Chip Cap, 3216 J 473PF	C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR312	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
C754	PANASONIC	E02-0322-0	Film Chip Cap, 3216 J 473PF	C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR313	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR314	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR315	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
C1001	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR316	AGILENT	E06-0159-0	SCHOTTKY DIODE, HSMS-2829
C1002	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T
C1003	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR501	BRIGHT LED	E07-0041-0	CHIP LED, BL-HEIG033B-TR
C1004	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR701	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C1005	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR702	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C1006	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR703	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)
C1007	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	DEC1	BGTech	E17-0038-0	Descriminator, JTBC455C24(LCP)
C1008	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CF1 CF1 ²	BGTech BGTech	E17-0003-0 E17-000057-00	Ceramic Filter, ELFY455F CQ, Ceramic Filter, LTWC455F	FL101	BGTech	E08-0135-0	Crystal, 7.3728MHz (H : 2.8mm) : Rev02
C1009	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CF2 CF2 ²	BGTech BGTech	E17-0004-0 E17-000058-00	Ceramic Filter, ELFY455H CQ, Ceramic Filter, LTWC455H	FL102	BGTech	E08-0036-0	Crystal, 3.5795MHz (H : 2.8mm)
C1010	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR110	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR	FL201	BGTech	E08-0043-0	Crystal, 44.645MHz (SMD)
C1011	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR111	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR				
C1012	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR112 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR				
C1013	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR113 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR				
C1014	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR114 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR				
C1015	TDK	E02-0233-0	Chip Cap, 1005 J 47PF								
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF								
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF								

Circuit Ref.	Supplier	Supplier Part No.	Description
FL301	BGTech	E17-0026-0	Crystal Filter, MCF 45.15S12.B (8.5KHz)
FL701	BGTech	E08-0055-0	VCTCXO, 12.8 MHZ
J101	BGTech	E10-0167-0	FPC CONNECTOR, 05004HR-07C01S(G)
J102	BGTech	E10-0173-0	FPC CONNECTOR, 05004HR-22A01S
J103	BGTech	E10-0171-0	FPC CONNECTOR, 04-6292-022-000-800+
J104	BGTech	E10-0169-0	FPC CONNECTOR, XF2M-1215-1A
J105	BGTech	E10-0349-0	FPC CONNECTOR, 52745-1297
J601	BGTech	E10-0014-0	SPK MIC JACK, 0980683Z01-D
J602	BGTech	E10-0081-0	BATTERY CONNECTOR, 060031MA005G500PL
J603	BGTech	E10-0099-0	CONNECTOR, 53047-0210
L301	DAERIM	E03-0063-0	Coil Air, 0.45-1.4-5TL
L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N
L306	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
L310	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L320	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L323	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L324	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L325	DELTA	9270022111820	Chip Ind, 2012 220NH G (Tolerance 2%)
L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
L328	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
L329	BGTech	E03-0185-0	Balun Trans,#617PT-1667
L331	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L332	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L333	BGTech	E03-0185-0	Balun Trans,#617PT-1667

Circuit Ref.	Supplier	Supplier Part No.	Description
L334	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
L340	TAIYOYUDEN	E03-0180-0	Chip Ind, 1608 K 820NH
L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH
L402	TAIYOYUDEN	E03-0108-0	Chip Ind, 1608 J 22nH
L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ
L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH
L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
L409	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L410	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L411	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L413	DAERIM	E03-0051-0	Coil Air, 0.35-1.6-7TL
L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L603	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L706	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
MIC1	BGTech	E19-0009-0	C-MIC, 6.0*2.7/2.2KΩ,2V,-44±3dB, Pin type
PB501	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
PB502	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
PB503	BGTech	E09-0030-0	Tack Switch, EVQPUD02K

Circuit Ref.	Supplier	Supplier Part No.	Description
Q101	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q102	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q103	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q104	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
Q110	KEC	E05-0015-0	KRC 101S KEC BJT NPN Transistor
Q111	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q112	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q113	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q114	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q120	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q121	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q122	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q201	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q202	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q206	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q301	HITACHI	E05-0065-0	2SC4901 HITACH BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q308	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
Q405	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q406	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q407	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q408	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q409	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q501	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q502	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q503	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q504	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q505	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q601	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q602	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q701	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q702	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q703	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q704	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q705	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q706	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q707	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q708	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q709	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q710	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q711	KEC	E05-0027-0	KRA 304 KEC BJT PNP Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R133	KAMAYA	E01-0362-0	Chip Res, 1005 J 680KΩ
R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ
R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R147	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KΩ
R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R155	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R156	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R160	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R176	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R177	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R198	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ
R204 R204 ²	KAMAYA KAMAYA	E01-0178-0 E01-0218-0	Chip Res, 1005 J 22KΩ Chip Res, 1005 J 3KΩ
R206 R206 ²	KAMAYA KAMAYA	E01-0056-1 E01-0218-0	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 3KΩ
R207 R207 ²	KAMAYA KAMAYA	E01-0178-0 E01-0056-1	Chip Res, 1005 J 22KΩ Chip Res, 1005 J 10KΩ
R208 R208 ²	KAMAYA KAMAYA	E01-0085-0 E01-000056-01	Chip Res, 1005 J 12KΩ Chip Res, 1005 J 10KΩ
R210 R210 ²	KAMAYA KAMAYA	E01-0089-1 E01-000358-00	Chip Res, 1005 J 120KΩ Chip Res, 1005 J 68KΩ
R211 R211 ²	KAMAYA KAMAYA	E01-0112-1 E01-000157-00	Chip Res, 1005 J 15KΩ Chip Res, 1005 J 20KΩ
R212 R212 ²	KAMAYA KAMAYA	E01-0295-1 E01-000205-00	Chip Res, 1005 J 47KΩ Chip Res, 1005 J 27KΩ
R213 R213 ²	KAMAYA KAMAYA	E01-0238-0 E01-000025-01	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 0Ω
R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R217 R217 ²	KAMAYA KAMAYA	E01-0056-1 E01-0218-0	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 3KΩ
R220	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R230 ²	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R258 R258 ²	KAMAYA KAMAYA	E01-0107-0 E01-000386-00	Chip Res, 1005 J 1.5KΩ Chip Res, 1005 J 8.2KΩ
R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R309	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R310	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KΩ
R311	KAMAYA	E01-0234-1	Chip Res, 1005 J 330Ω
R312	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R317 R317 ²	KAMAYA KAMAYA	E01-0143-0 E01-000184-00	Chip Res, 1005 J 180KΩ Chip Res, 1005 J 220KΩ
R318 R318 ²	KAMAYA KAMAYA	E01-0201-0 E01-000172-01	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 2.2KΩ
R319 R319 ²	KAMAYA KAMAYA	E01-0201-0 E01-000238-00	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 3.3KΩ
R320	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R339	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R341	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R342	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R343	TAIYOUDEN	E03-0308-0	Chip Ind, 1005 K 2R2
R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω
R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R405	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R406	KAMAYA	E01-0165-0	Chip Res, 1005 J 22Ω
R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220Ω
R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ
R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ	R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ	R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ	R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ	R516	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ	R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ
R423	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R517	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KΩ	R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ	R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ	R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R701	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ	R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R427	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ	R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ	R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ	R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ	R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 KΩ	R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ	R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ	R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ	R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8KΩ
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω	R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R501	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R715	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R502	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300Ω
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ	R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 KΩ	R538	KAMAYA	E01-0352-0	Chip Res, 1005 J 6.8KΩ	R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5KΩ
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ	R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R507	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ	R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ	R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390Ω
R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390KΩ	R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ
R1003	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
RT201 ³	TAIYO YUDEN	E01-0478-0	Thermistor, 103K
RT202 ²	TAIYO YUDEN	E01-001138-00	Thermistor, 102K
RT501	TAIYO YUDEN	E01-0478-0	Thermistor, 103K
SH101	BGTech	M06-0163-0	Shield Can - Vco,SPCC (0.3t),18.8x20.4(Inner),H=3,Drawing type
SH102	BGTech	M06-0173-0	Shield Can Tcxo,C5210P(0.3t),18.4x21(Inner),H=2.5
SH103	BGTech	M06-0268-0	Pa Shield Can,C5210P(0.3t),9X11.6(outer), H=2.1
SH104	Motorola	PMDN4150AR	Finger Strip, T PCB
SH105	Motorola	PMDN4149AR	Finger Strip, TX
SH201	Motorola	PMDN4151AR	Finger Strip - Pair
SH202	Motorola	PMDN4152AR	Finger Strip - Single

Circuit Ref.	Supplier	Supplier Part No.	Description
SW1	BGTech	E09-000048-00	CH SWITCH, RY-8650
SW/VOL1	BGTech	E01-1032-0	Switch Volume, RY-8418
U101	BGTech	E04-0046-0	PU IC, M3030RFCPGP
U102	BGTech	E04-0114-0	AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	DTMF RECEIVER, MT88L70 ANR1
U104	BGTech	E04-0097-0	EEPROM IC, 24LC64
U105	JRC	E04-0185-0	OP AMP, NJM324 V
U106	BGTech	E04-0211-0	Analog SW IC, TC7S66FU
U107	KEC	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201 U201 ²	BGTech BGTech	E04-0195-0 E04-000890-00	FM IC, TA31136 AGAMEM, FM IC, AA32416
U202	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358 F
U402	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	OP AMP, NJM324 V
U502	JRC	E04-0185-0	OP AMP, NJM324 V
U505	BGTech	E04-0150-0	REGULATOR IC, TK11250CMCL-G
U506	BGTech	E04-0588-0	REGULATOR IC, TK11233CMCL-G
U507	BGTech	E04-0207-0	VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	PLL IC, MB15E03SLPFV1-G-BND-EF-6
PCB1	BGTech	E11-0763-0	Main PCB, FR4 4 Layer PCB Rev.#MP02
PCB1 ²	BGTech	E11-000996-00	Main PCB, FR4 4 Layer PCB Rev.#MP03
SUB PCB1	BGTech	E11-000002-02	Sub PCB, 1.2T 2Layer

Circuit Ref.	Supplier	Supplier Part No.	Description
KEY PCB1	BGTech	E11-000886-00	Key PCB, 1.2T 2Layer

- Note:
1.

Not for PMUE3137AAE Model
2.

Only for PCB No. *E11-000996-00*
3.

Not applicable for PCB No. *E11-000996-00*

7.5.1 MDC1200 and QCII Models

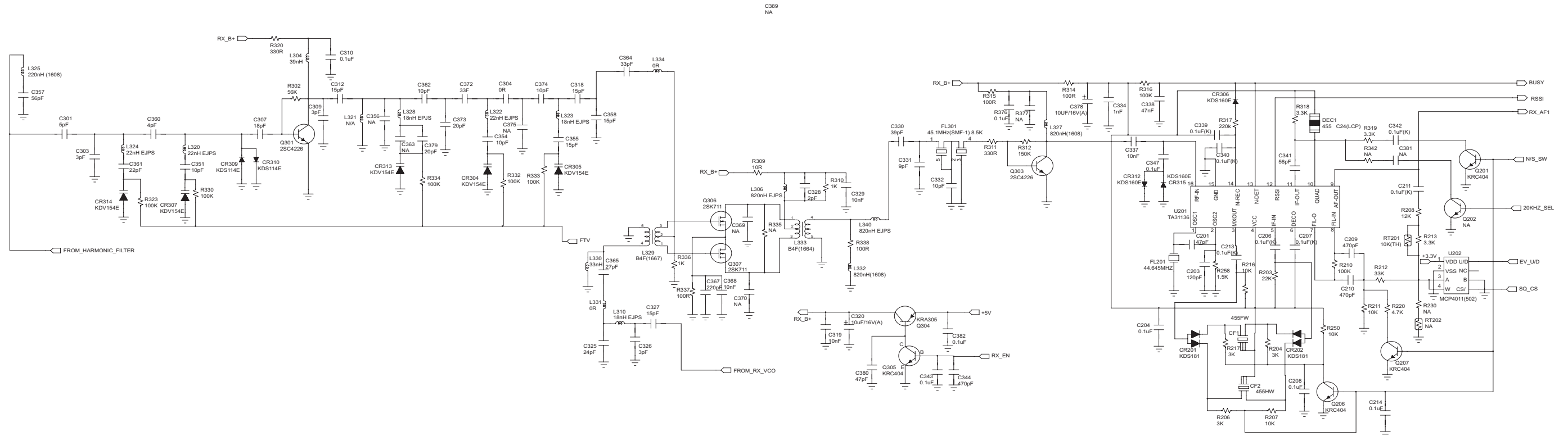


Figure 7-33. UHF2 (435–480 MHz, MDC1200 and QCII) Receiver Schematic Diagram (Part No:E11-000947-00)

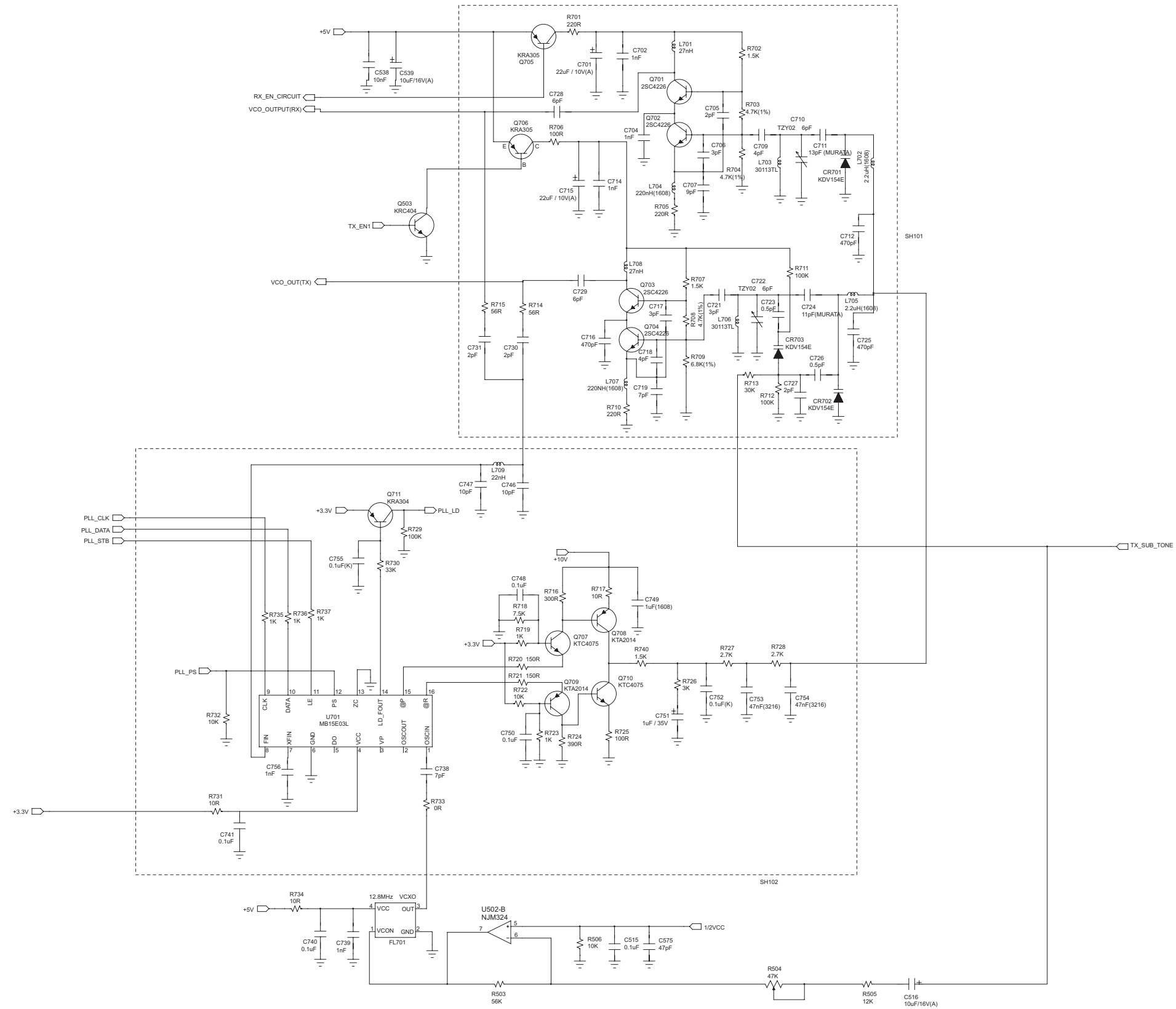


Figure 7-35. VCO and PLL (MDC1200 and QCII) Schematic Diagram

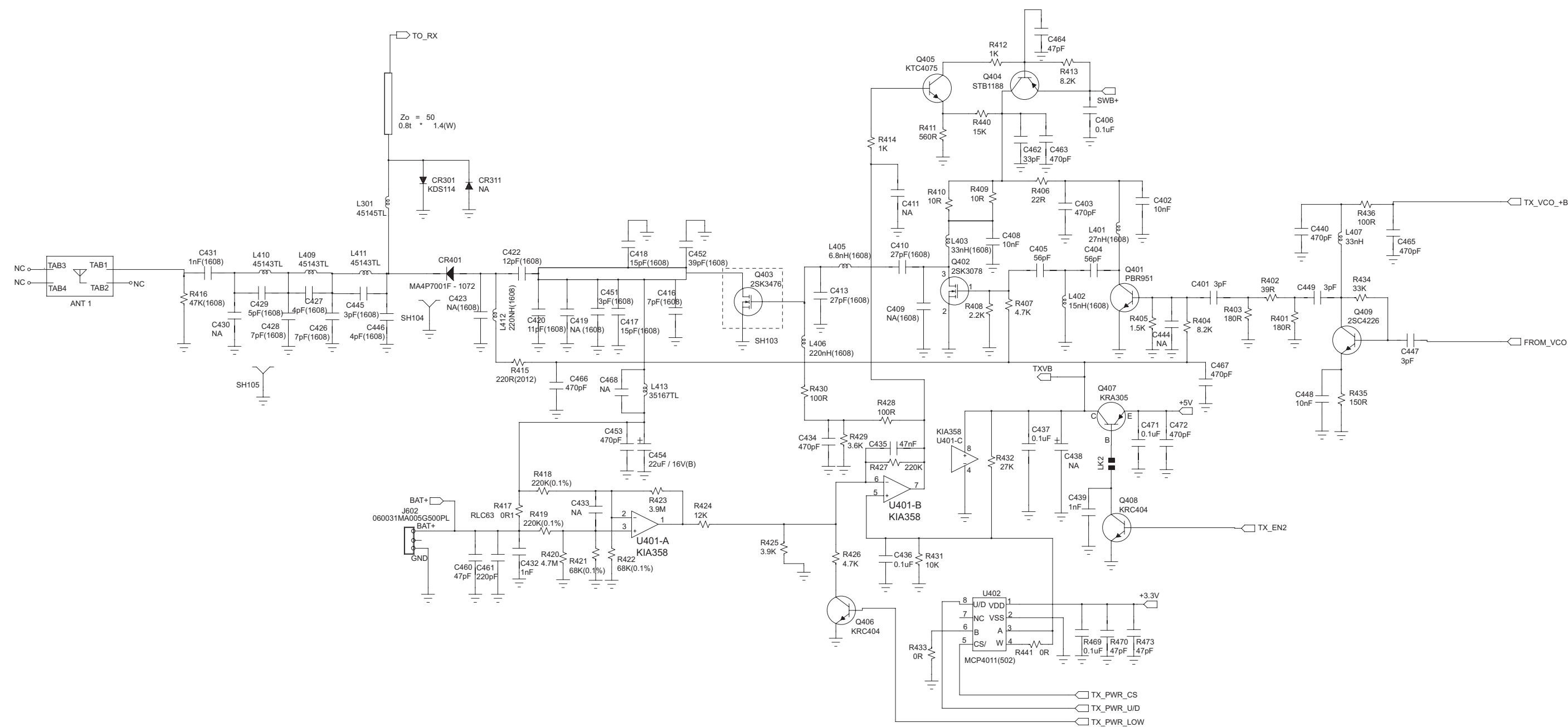


Figure 7-36. Transmitter (MDC1200 and QCII) Schematic Diagram

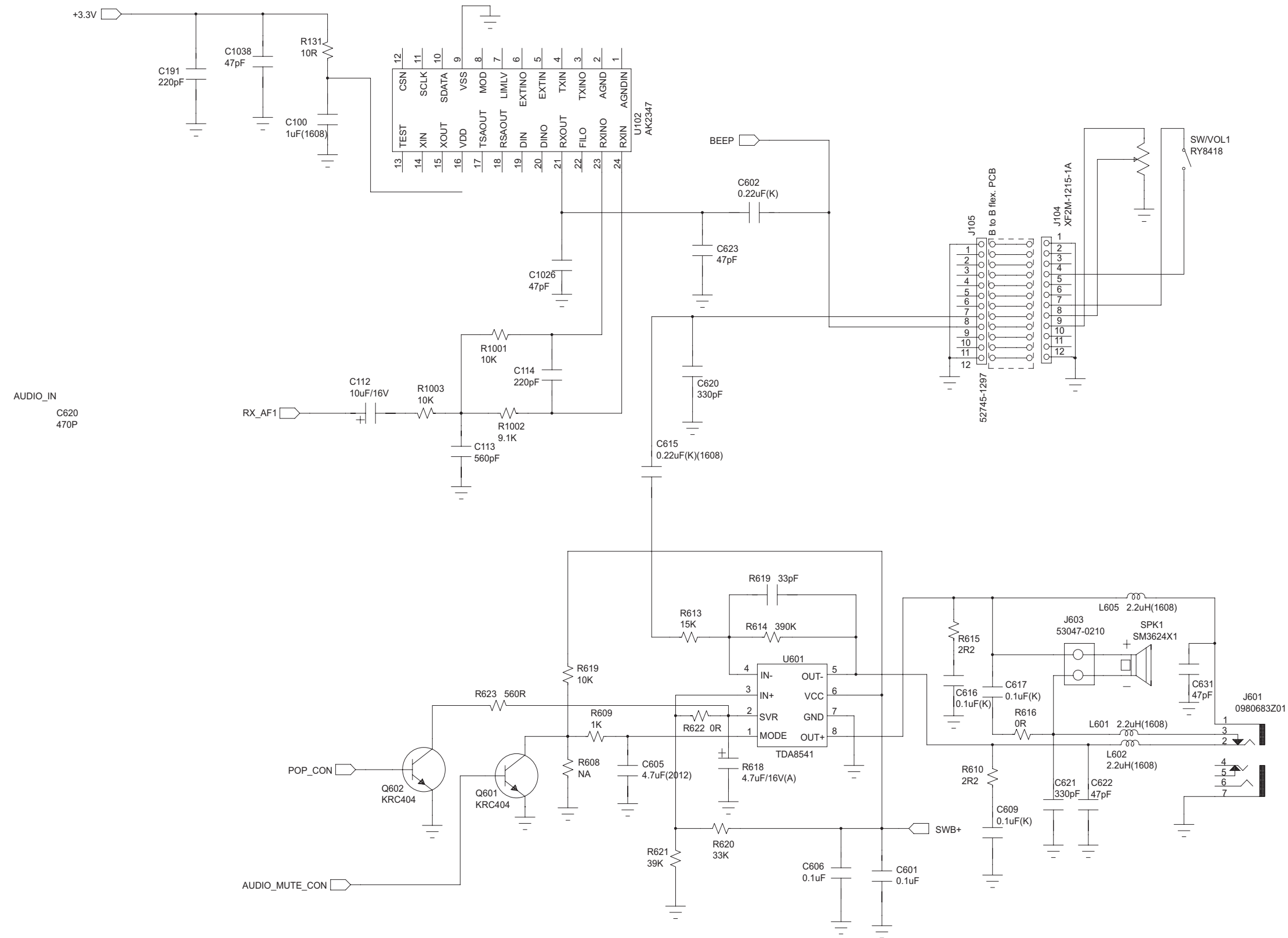


Figure 7-38. Audio Power Amplifier and External Audio (MDC1200 and QCII) Schematic Diagram

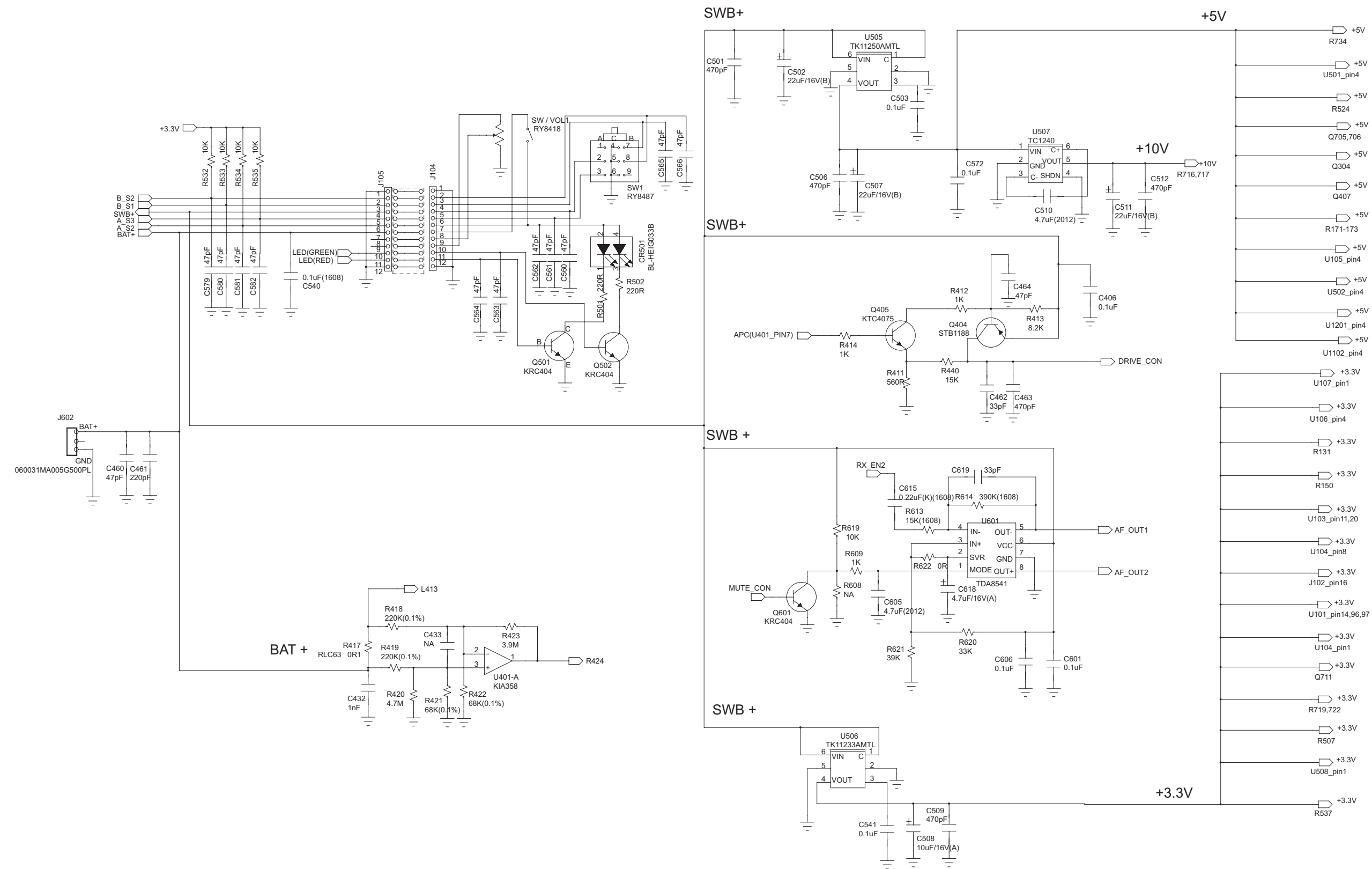
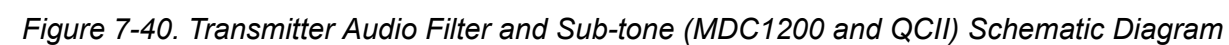


Figure 7-39. Switches and Battery (MDC1200 and QCII) Schematic Diagram



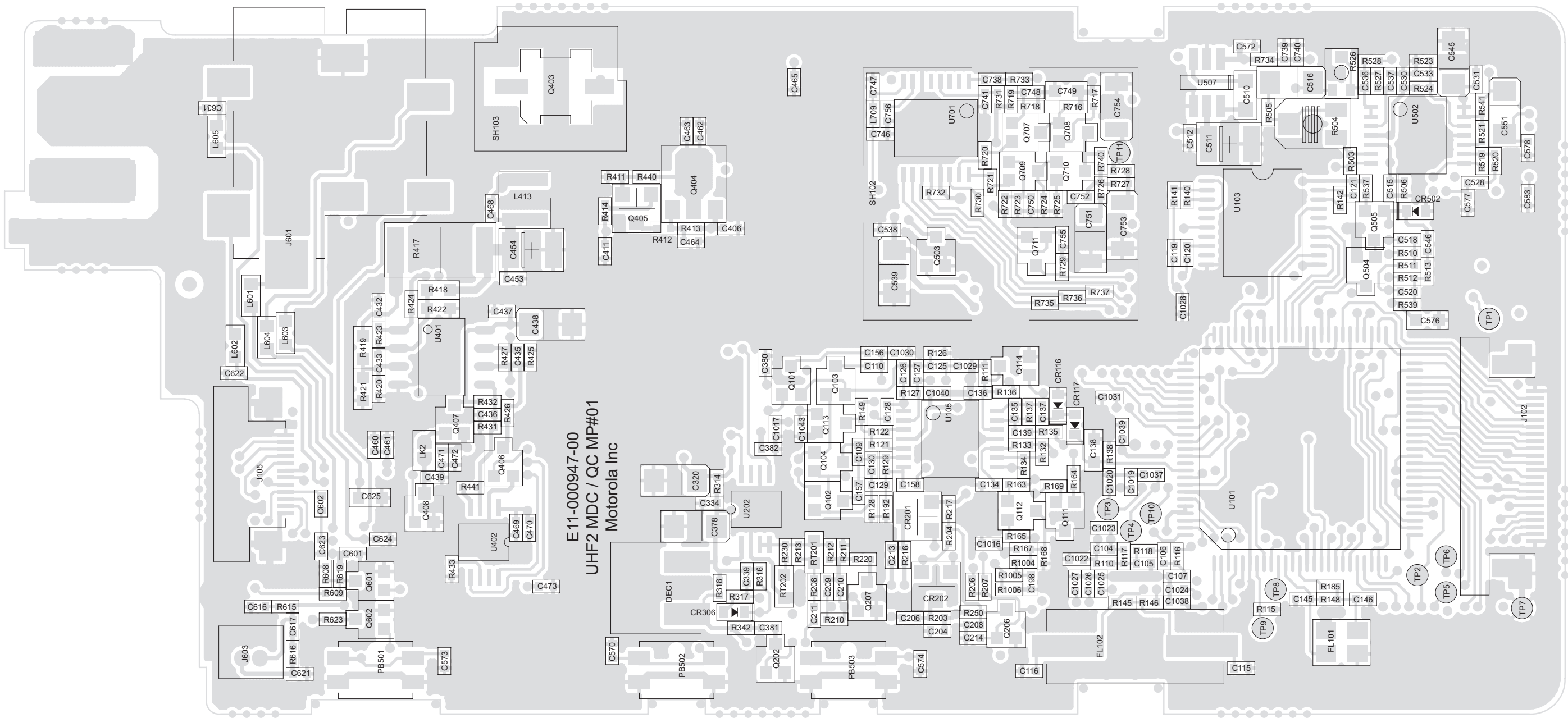


Figure 7-41. UHF2 (435–480 MHz) Mainboard Top Side: PCB No. E11-000947-00

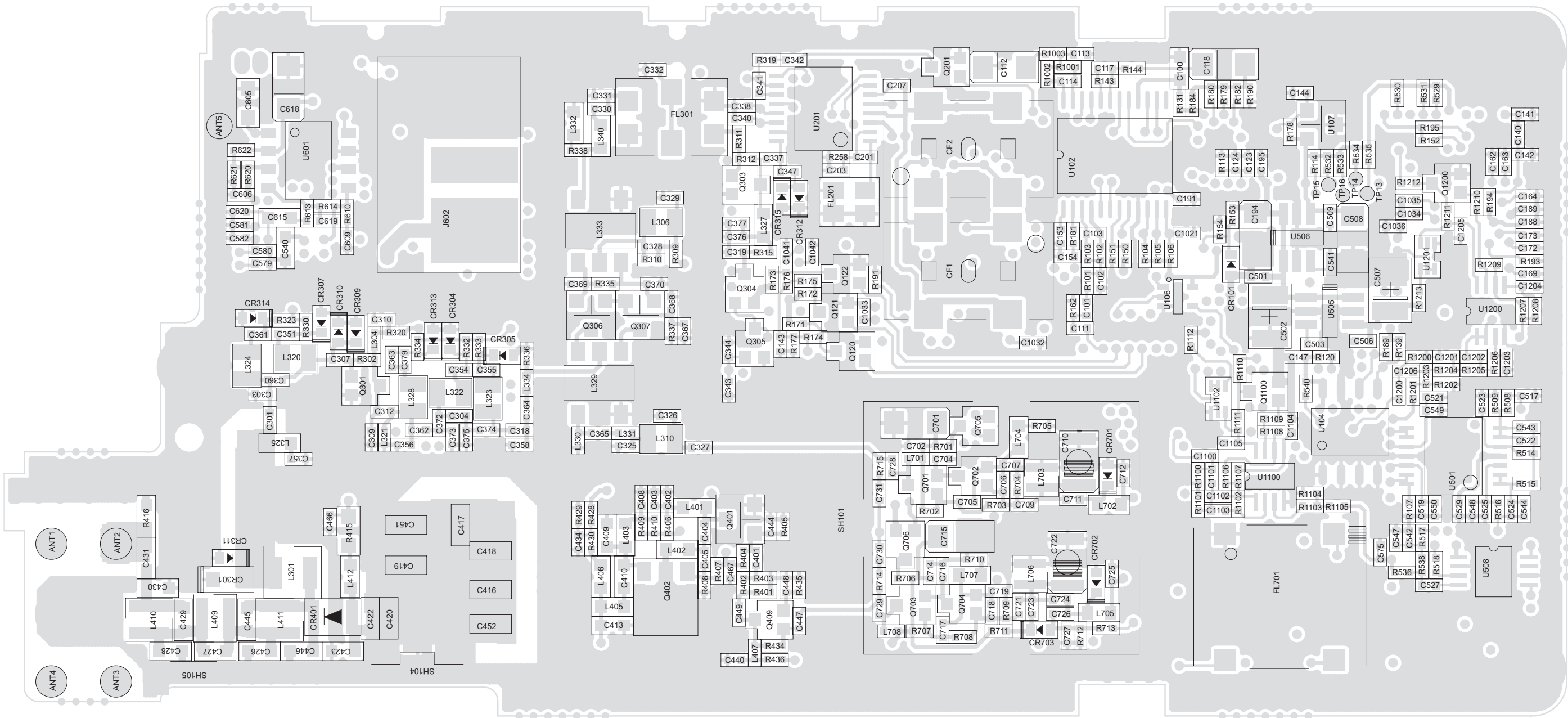


Figure 7-42. UHF2 (435–480 MHz) Mainboard Bottom Side: PCB No. E11-000947-00

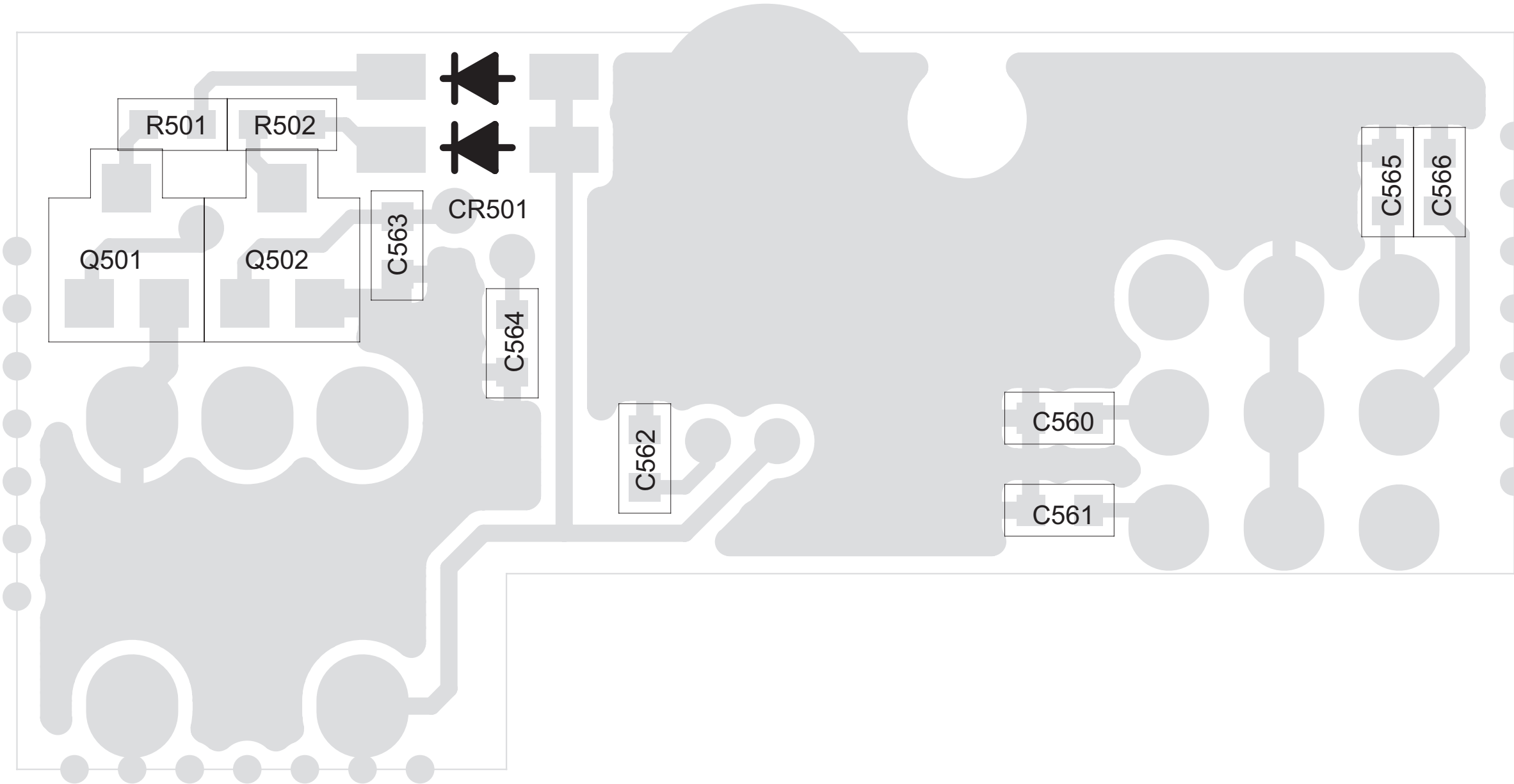


Figure 7-43. UHF2 (435–480 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

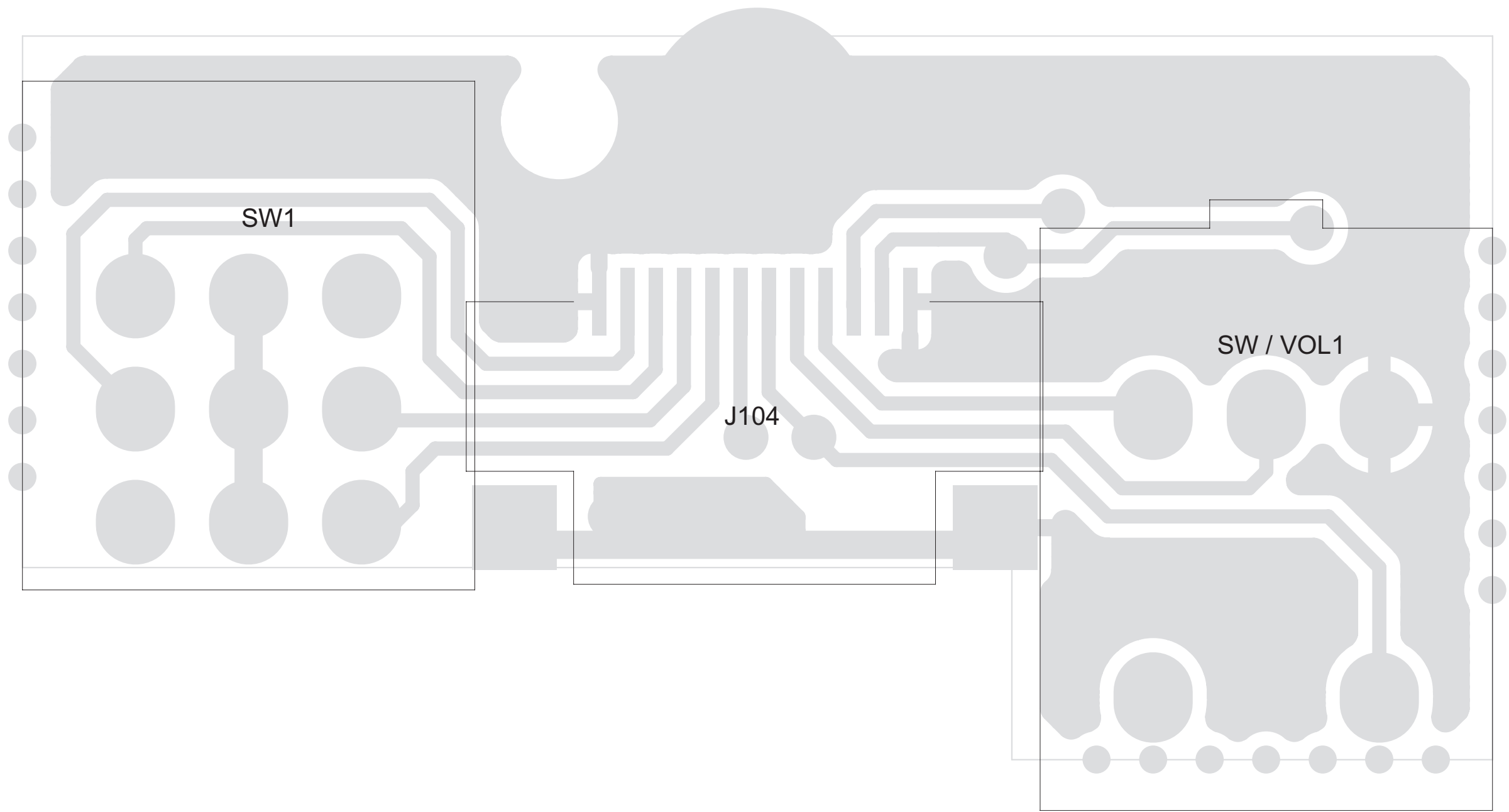


Figure 7-44. UHF2 (435–480 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

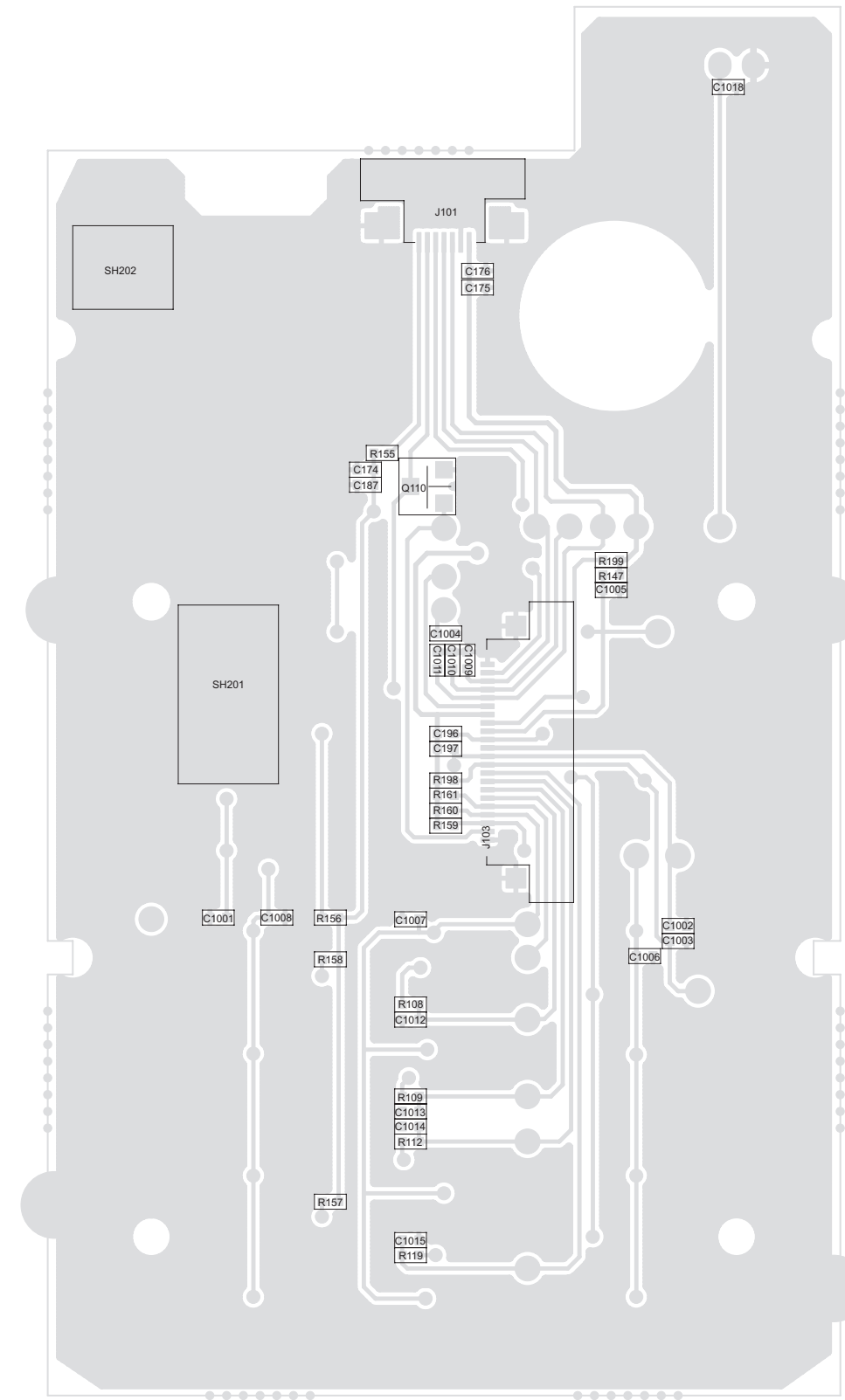


Figure 7-45. UHF2 (435–480 MHz) Keypad Board: PCB No. E11-000886-00

7.5.2 Parts List (MDC 1200 and QCII)

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap, 1005 K 333PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C123	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0097-0	Chip Cap, 1005 J 120PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C204	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C301	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C303	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C304	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
C307	TDK	E02-0125-0	Chip Cap, 1005 J 18PF
C309	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C310	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C312	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C318	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C325	TDK	E02-0177-0	Chip Cap, 1005 J 24PF
C326	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C327	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C328	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C329	TDK	E02-0049-0	Chip Cap, 1005 K 103PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C330	TDK	E02-0222-0	Chip Cap, 1005 J 39PF
C331	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C332	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C341 C341 ⁴	TDK TDK	E02-0273-0 E02-000303-00	Chip Cap, 1005 J 56PF Chip Cap, 1005 J 82PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C343	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C347	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C351	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C354	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C355	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C358	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C361	TDK	E02-0125-0	Chip Cap, 1005 J 18PF
C362	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C365	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C367	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C368	TDK	E02-0049-0	Chip Cap, 1005 K 103PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C372	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C373	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C374	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C376	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C378	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C379	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C404	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C405	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C406	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C410	TDK	E02-0182-0	Chip Cap, 1608 J 27PF
C413	TDK	E02-0182-0	Chip Cap, 1608 J 27PF
C416	TDK	E02-0020-0	Chip Cap, 1608 D 7PF
C417	TDK	E02-0109-0	Chip Cap, 1608 J 15PF
C418	TDK	E02-0109-0	Chip Cap, 1608 J 15PF
C420	TDK	E02-0092-0	Chip Cap, 1608 J 11PF
C422	TDK	E02-0094-0	Chip Cap, 1608 J 12PF
C426	TDK	E02-0020-0	Chip Cap, 1608 C 7PF
C427	TDK	E02-0012-0	Chip Cap, 1608 C 4PF
C428	TDK	E02-0020-0	Chip Cap, 1608 C 7PF
C429	TDK	E02-0015-0	Chip Cap, 1608 C 5PF
C431	TDK	E02-0042-0	Chip Cap, 1608 J 1000PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C436	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C445	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C446	TDK	E02-0012-0	Chip Cap, 1608 C 4PF
C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C451	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C452	TDK	E02-0223-0	Chip Cap, 1608 J 39PF
C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C454	AVX	E02-0384-0	Chip Tantal, 22uF-M/ 16V(B)
C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C461	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C502	AVX	E02-0384-0	Chip Tantal, 22uF-M/ 16V(B)
C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C507	AVX	E02-0384-0	Chip Tantal, 22uF-M/ 16V(B)
C508	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C511	AVX	E02-0384-0	Chip Tantal, 22uF-M/ 16V(B)
C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C516	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C522	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C525	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C539	AVX	E02-0355-1	Chip Tantal, 10uF-M/ 16V(A)
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C543	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C545	AVX	E02-0383-0	Chip Tantal, 22uF-M/ 10V(A)	C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	C711	MURATA	E02-0106-0	Chip Cap, 1005 J 13PF 10V
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF	C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C714	TDK	E02-0125-0	Chip Cap, 1005 K 1000PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C715	AVX	E02-0383-0	Chip Tantal, 22uF-M/ 10V(A)
C551	AVX	E02-0347-0	Chip Tantal, 10uF-M/ 10V(A)	C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF	C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C560 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C561 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C562 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C618	AVX	E02-0405-0	Chip Tantal, 4.7uF-M/ 16V(A)	C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C563 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C564 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF	C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C565 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF	C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C566 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C724	MURATA	E02-0091-0	Chip Cap, 1005 J 11PF 10V
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C726	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF	C727	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C701	AVX	E02-0383-0	Chip Tantal, 22uF-M/ 10V(A)	C728	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C729	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF	C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C705	TDK	E02-0006-0	Chip Cap, 1005 C 2PF	C731	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C706	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C707	TDK	E02-0024-0	Chip Cap, 1005 D 9PF	C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C709	TDK	E02-0011-0	Chip Cap, 1005 C 4PF	C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF					C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF								
C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF								

Circuit Ref.	Supplier	Supplier Part No.	Description
C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C751	AVX	E02-0339-0	Chip Tantal, 1uF-M/ 35V(A)
C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C753	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C754	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C1001 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1002 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1003 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1004 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1005 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1006 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1007 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1015 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C1018 ^{1,2,3}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1040	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1041	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1042	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1043	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1100	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1101	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1102	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C1103	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C1104	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1105	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1200	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1201	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C1202	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1203	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C1204	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1205	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1206	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
CF1 CF1 ⁴	BGTech BGTech	E17-0003-0 E17-000057-00	Ceramic Filter, ELFY455F CQ, Ceramic Filter, LTWC455F
CF2 CF2 ⁴	BGTech BGTech	E17-0004-0 E17-000058-00	Ceramic Filter, ELFY455H CQ, Ceramic Filter, LTWC455H
CR110 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR111 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR112 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR113 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
CR114 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR	CR702	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	J602	BGTech	E10-0081-0	SUYIN, BATTERY CONNECTOR, 060031MA005G500PL
CR115 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR	CR703	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	J603	BGTech	E10-0099-0	MOLEX, CONNECTOR, 53047-0210
CR116	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	DEC1	BGTech	E17-0038-0	CQ, Discriminator, JTBC455C24(LCP)	L301	DEARIM	E03-0063-0	Coil Air, 0.45-1.4-5TL
CR117	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	FL101	BGTech	E08-000152-00	SHINSUNG, Crystal, 14.7456MHz	L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N
CR201	KEC	E06-0005-0	SWITCH DIODE, KDS 181	FL102	BGTech	E08-0036-0	SHINSUNG, Crystal, 3.5795MHz (H : 2.8mm)	L306	DELTA	9270820N11820	Chip Ind, 2012 220NH
CR202	KEC	E06-0005-0	SWITCH DIODE, KDS 181	FL201	BGTech	E08-0043-0	SHINSUNG, Crystal, 44.645MHz (SMD)	L310	DELTA	9270018N11820	Chip Ind, 2012 18NH
CR301	KEC	E06-0002-0	SWITCH DIODE, KDS-114	FL301	BGTech	E17-0026-0	SHINSUNG, Crystal Filter, MCF 45.15S12.B (8.5KHz)	L320	DELTA	9270022011820	Chip Ind, 2012 22NH
CR304	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	FL701	BGTech	E08-0055-0	SHINSUNG, VCTCXO, 12.8 MHZ	L322	DELTA	9270022011820	Chip Ind, 2012 22NH
CR305	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	F-CABLE1	BGTech	E15-0042-0	SNAGGWA, BEACON FLAT CABLE, FF12-22N080XXA	L323	DELTA	9270018N11820	Chip Ind, 2012 18NH
CR306	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	F-CABLE2	BGTech	E15-0174-0	SNAGGWA, , BEACON FLAT CABLE, FF12-12N040XXA	L324	DELTA	9270022011820	Chip Ind, 2012 22NH
CR307	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	J101 ^{1,2}	BGTech	E10-0167-0	YUNHO, FPC CONNECTOR, 05004HR-07C01S(G)	L325	DELTA	9270022111820	Chip Ind, 2012 220NH
CR309	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)	J102	BGTech	E10-0173-0	YUNHO, FPC CONNECTOR, 05004HR-22A01S	L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
CR310	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)	J103 ^{1,2,3}	BGTech	E10-0171-0	KYOCERA, FPC CONNECTOR, 04-6292-022-000-800+	L328	DELTA	9270018N11820	Chip Ind, 2012 18NH
CR312	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	J104 ^{1,2,3}	BGTech	E10-0169-0	OMIRON, FPC CONNECTOR, XF2M-1215-1A	L329	BGTech	E03-0185-0	TOKO, #617PT-1667
CR313	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	J105	BGTech	E10-0349-0	YUNHO, FPC CONNECTOR, 05004HR-12B01S(G)	L330	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
CR314	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	J601	BGTech	E10-0014-0	CHI CHENG, SPK MIC JACK, 0980683Z01-D	L331	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
CR315	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)					L332	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T					L333	BGTech	E03-0184-0	TOKO, #617PT-1664
CR501 ^{1,2,3}	BRIGHT LED	E07-0041-0	LED DIODE, BL-HEIG033B-TR					L334	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
CR701	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)					L340	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
								L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH
								L402	TAIYOYUDEN	E03-0087-0	Chip Ind, 1608 15NJ
								L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ
								L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH
								L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
								L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
								L409	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
								L410	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
								L411	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
								L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J

Circuit Ref.	Supplier	Supplier Part No.	Description
L413	DEARIM	E03-0051-0	Coil Air, 0.35-1.6-7TL
L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L603	BGTech	E03-0328-0	Chip Ferrite Beads, MMZ1608Y600B
L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L706	DAERIM	E03-0009-0	Coil Air, 0.3-1.0-3TL
L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
LCD101	BGTech	E20-0092-0	EVERRVIEW,VBS3208 A2-7FWLYA,REV4.0
MIC1 ^{1,2,3}	BGTech	E19-0009-0	BSE, C-MIC, 6.0*2.7/ 2.2KΩ,2V,-44±3dB, Pin type
PB501	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
PB502	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
PB503	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
Q101	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q102	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q103	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q104	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q110 ^{1,2}	KEC	E05-0015-0	KRC 404 BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q111	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q112	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q113	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q114	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q120	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q121	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q122	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q201	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q206	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q301	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q306	BGTech	E05-0084-0	2SK711 TOSHIBA FET N-Channel Transistor
Q307	BGTech	E05-0084-0	2SK711 TOSHIBA FET N-Channel Transistor
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
Q405	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q406	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q407	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q408	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q409	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q501 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q502 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q503	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q504	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q505	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q601	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q602	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q701	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q702	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q703	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q704	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q705	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q706	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q707	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
Q708	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor	R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
Q709	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor	R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
Q710	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor	R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
Q711	KEC	E05-0027-0	KRA 304 BJT PNP Transistor	R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
Q1100	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ	R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KΩ
Q1200	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ	R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R155 ^{1,2}	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R156 ^{1,2}	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ	R133	KAMAYA	E01-0362-0	Chip Res, 1005 J 680KΩ	R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ	R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R135	TDK	E02-0057-0	Chip Cap,1005 K 104PF	R159 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R160 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ	R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R161 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ	R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ	R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ	R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ	R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ	R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R147 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ	R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ					R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
								R176	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
								R177	KAMAYA	E01-0178-0	Chip Res, 1005 J 20KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R189	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R191	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R192	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ
R204	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R206	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R208 R208 ⁴	KAMAYA KAMAYA	E01-0085-0 E01-000056-01	Chip Res, 1005 J 12KΩ Chip Res, 1005 J 10KΩ
R210 R210 ⁴	KAMAYA KAMAYA	E01-0063-1 E01-000358-00	Chip Res, 1005 J 100KΩ Chip Res, 1005 J 68KΩ
R211 R211 ⁴	KAMAYA KAMAYA	E01-0056-1 E01-000369-00	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 7.5KΩ
R212 R212 ⁴	KAMAYA KAMAYA	E01-0242-0 E01-000157-00	Chip Res, 1005 J 33KΩ Chip Res, 1005 J 20KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R213 R213 ⁴	KAMAYA KAMAYA	E01-0238-0 E01-000025-01	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 0Ω
R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R217	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R220 R220 ⁴	KAMAYA KAMAYA	E01-0289-1 E01-000263-01	Chip Res, 1005 J 4.7KΩ Chip Res, 1005 J 3.9KΩ
R230 ⁴	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R258 R258 ⁴	KAMAYA KAMAYA	E01-0107-0 E01-000386-00	Chip Res, 1005 J 1.5KΩ Chip Res, 1005 J 8.2KΩ
R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R309	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R310	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R311	KAMAYA	E01-0234-1	Chip Res, 1005 J 330Ω
R312	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R317	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R318 R318 ⁴	KAMAYA KAMAYA	E01-0238-0 E01-000218-00	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 3KΩ
R319 R319 ⁴	KAMAYA KAMAYA	E01-0238-0 E01-000201-00	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 2.7KΩ
R320	KAMAYA	E01-0234-1	Chip Res, 1005 J 330Ω
R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R332	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R336	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R337	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω
R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R405	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R406	KAMAYA	E01-0165-0	Chip Res, 1005 J 22Ω
R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220Ω
R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ
R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω
R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R423	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R427	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R501 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220
R502 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 KΩ
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
R516	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R517	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 KΩ
R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R538	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390KΩ
R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ
R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R701	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8KΩ
R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ
R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R715	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300Ω
R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5KΩ
R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390Ω
R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ
R1003	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
R1101	KAMAYA	E01-0152-0	Chip Res, 1005 J 2KΩ
R1102	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R1103	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R1104	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R1105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1106	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1107	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R1108	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R1109	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1110	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R1111	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1112	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R1200	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R1201	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R1202	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R1203	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R1204	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R1205	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R1206	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R1207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1208	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R1209	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R1210	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1211	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1212	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R1213	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
RT201 ⁵	TAIYOYUDEN	E01-0478-0	Thermistor, 103K
RT202 ⁴	TAIYOYUDEN	E01-001138-00	Thermistor, 102K
SW/VOL ^{1,2,3}	BGTech	E01-1032-0	TOKOS, Switch Volume, RY-8418 Rev1
SW ^{1,2}	BGTech	E09-000048-00	TOKOS, Channel Switch Volume, RY-8487
SPK1	BGTech	E21-0018-0	SHINMYUNG, Speaker, 24Ω 1.0W 36Φ(Connector type)
U101	BGTech	E04-000754-00	RENESAS ,CPU IC, M3030RFGPGP
U102	BGTech	E04-0114-0	ASAHI KASEL, AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	ZERLINK, DTMF RECEIVER, MT88L70
U104	BGTech	E04-000755-00	MIRCO CHIP, EEPROM IC, 24LC128L

Circuit Ref.	Supplier	Supplier Part No.	Description
U105	JRC	E04-0185-0	OP AMP, NJM324
U106	BGTech	E04-0211-0	TOSHIBA, Analog SW IC, TC7S66FU
U107	BGTech	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201 U201 ⁴	BGTech BGTech	E04-0195-0 E04-000890-00	TOSHIBA, FM IC, TA31136 AGAMEM, FM IC, AA32416
U202	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358
U402	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	JRC, OP AMP, NJM324
U502	JRC	E04-0185-0	JRC, OP AMP, NJM324
U505	BGTech	E04-0150-0	TOKO, REGULATOR IC, TK11250AMTL
U506	BGTech	E04-0588-0	TOKO, REGULATOR IC, TK11233AMTL
U507	BGTech	E04-0207-0	MICRO CHIP, VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	MIRCO CHIP,DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	PHILIPS, AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	FUJISU, PLL IC, MB15E03SLPFV1-(ER)-E1
U1100	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1102	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
U1200	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1201	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E

Circuit Ref.	Supplier	Supplier Part No.	Description
PCB1	BGTech	E11-000947-00	CAFSYSTEM, Main PCB, FR4 4 Layer PCB Rev.#MP01
PCB1 ⁴	BGTech	E11-000947-00*	CAFSYSTEM, Main PCB, FR4 4 Layer PCB Rev.#MP02
SUB PCB1 ^{1,2,3}	BGTech	E11-000002-02	'CAFSYSTEM, Sub PCB, 1.2T 2Layer
KEY PCB1 ^{1,2,3}	BGTech	E11-000886-00	CAFSYSTEM, Key PCB, 1.2T 2Layer

- Note
- :
- 1. For PMUE3742AAE Model
 - 2. For PMUE3741AAE Model
 - 3. For PMUE3740AAE Model
 - 4. Only for PCB No. *E11-000947-00**
 - 5. Not applicable for PCB No. *E11-000947-00**

(*) Same part number but with part changed to Agamen IF demodulator IC

Notes

Figure 7-46. MDC/QCII R&TTE (435–470 MHz) Receiver Schematic Diagram (Part No:E11-001016-00)

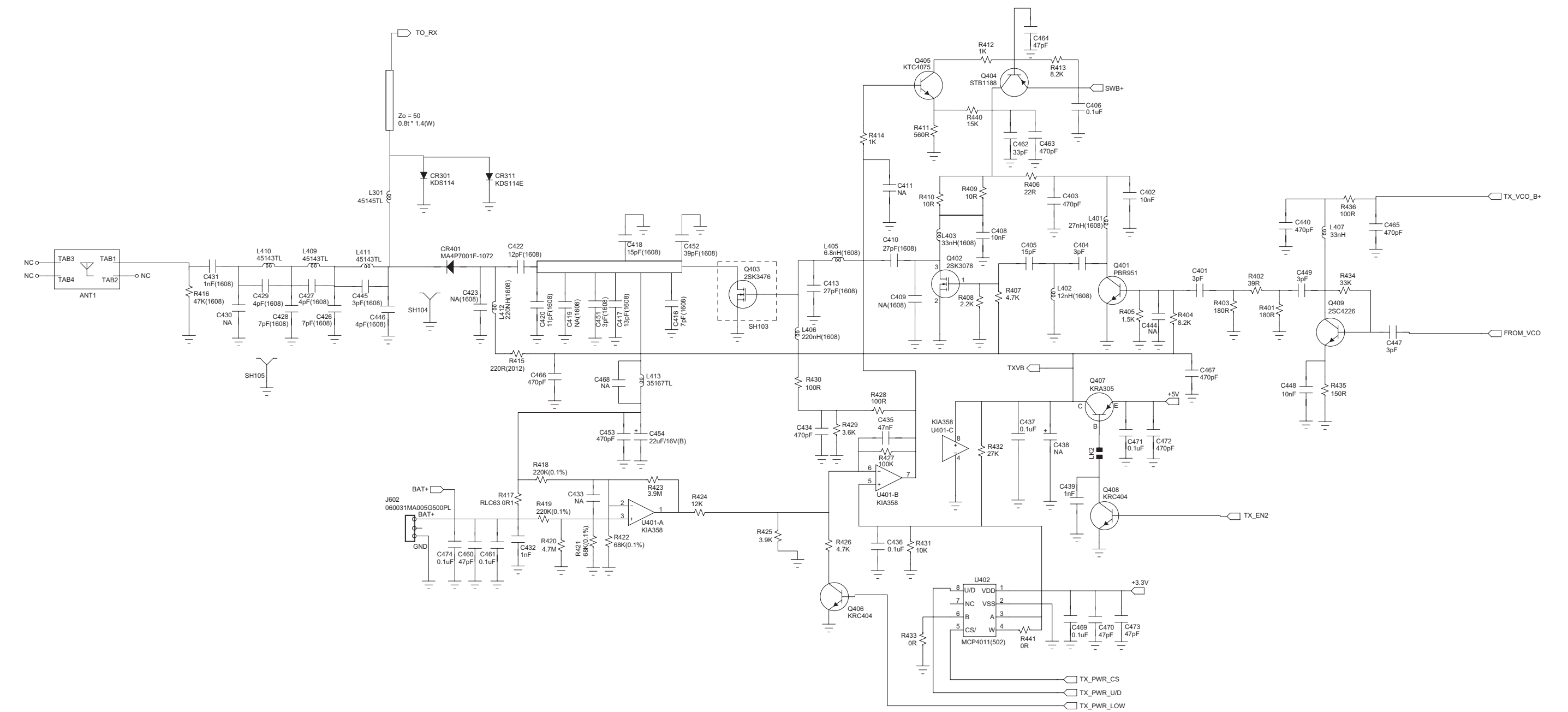


Figure 7-48. (MDC/QCII R&TTE) Transmitter Schematic Diagram



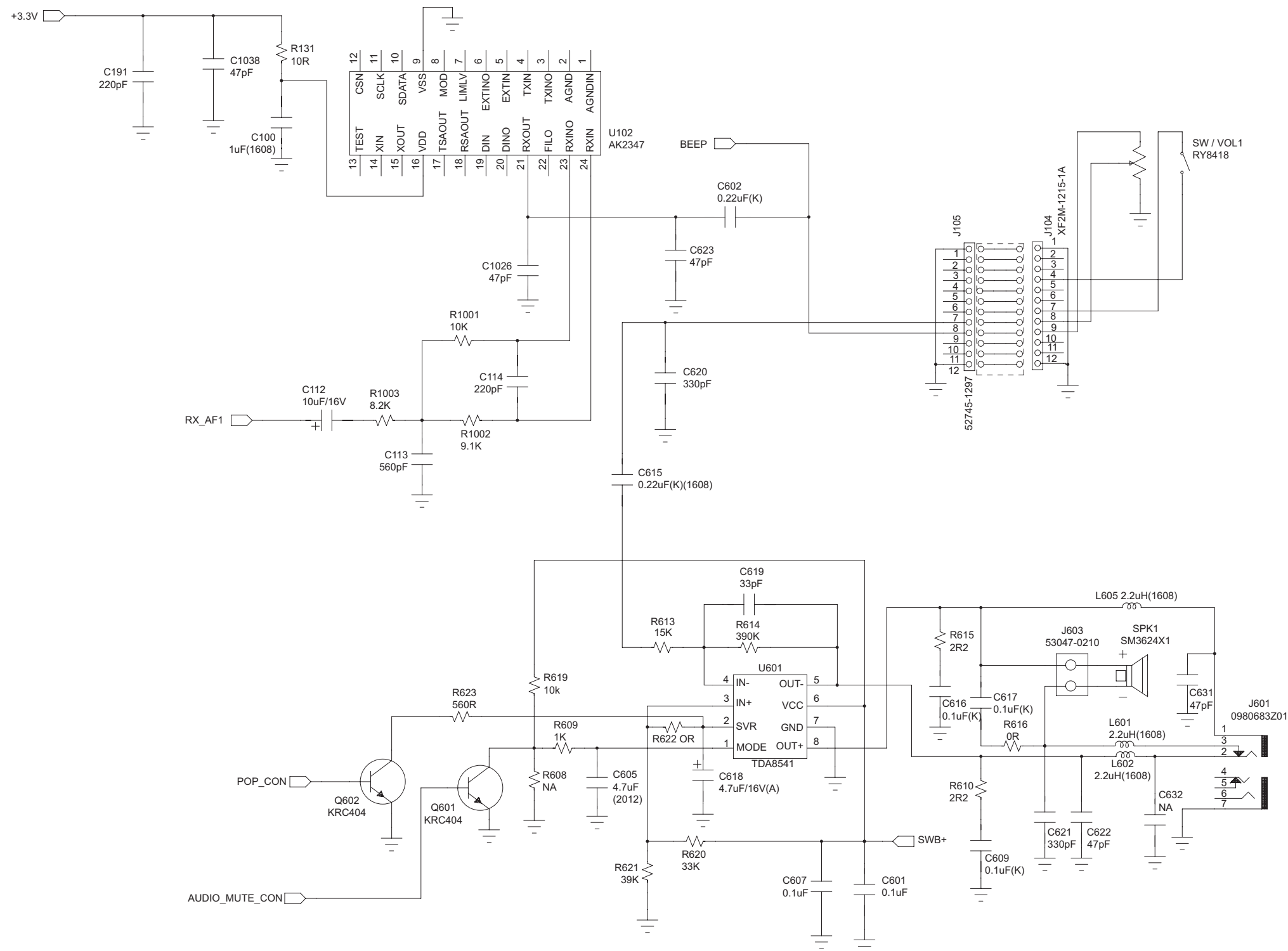


Figure 7-50. MDC/QCII R&TTE Audio Power Amplifier and External Audio Schematic Diagram

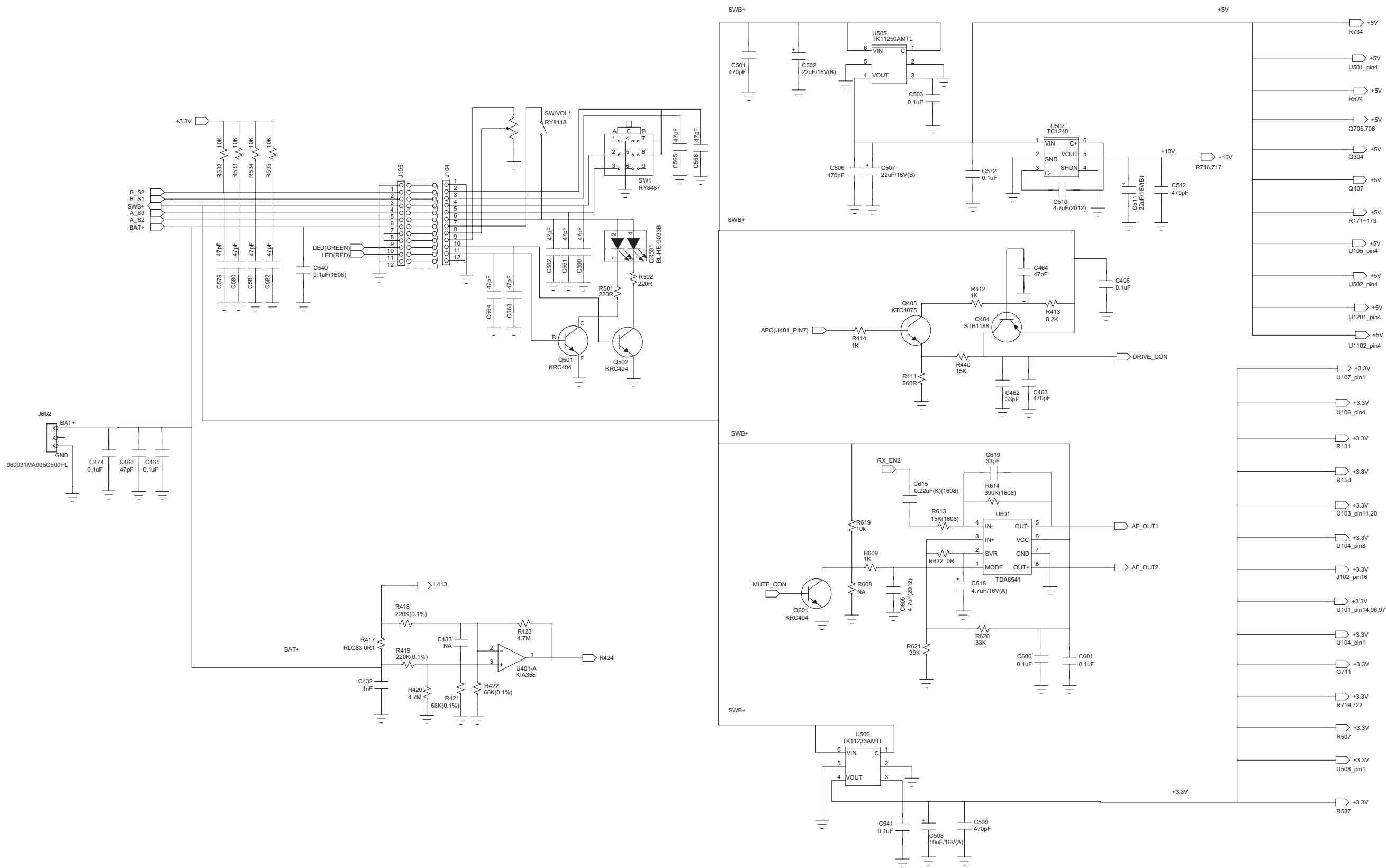


Figure 7-51. MDC/QCII R&TTE Switches and Battery Schematic Diagram

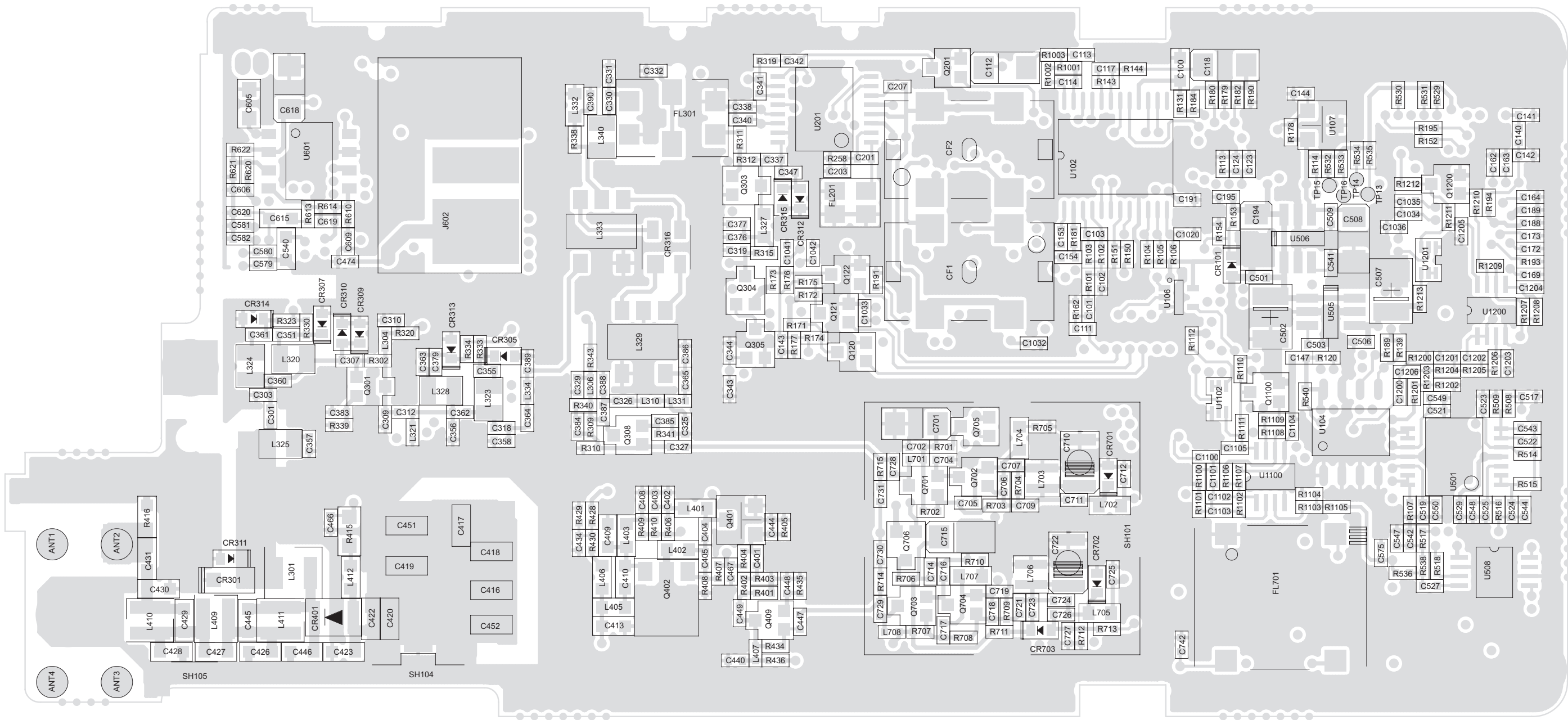


Figure 7-54. UHF2 MDC/QCII R&TTE (435–470 MHz) Mainboard BottomSide: PCB No. E11-001016-00

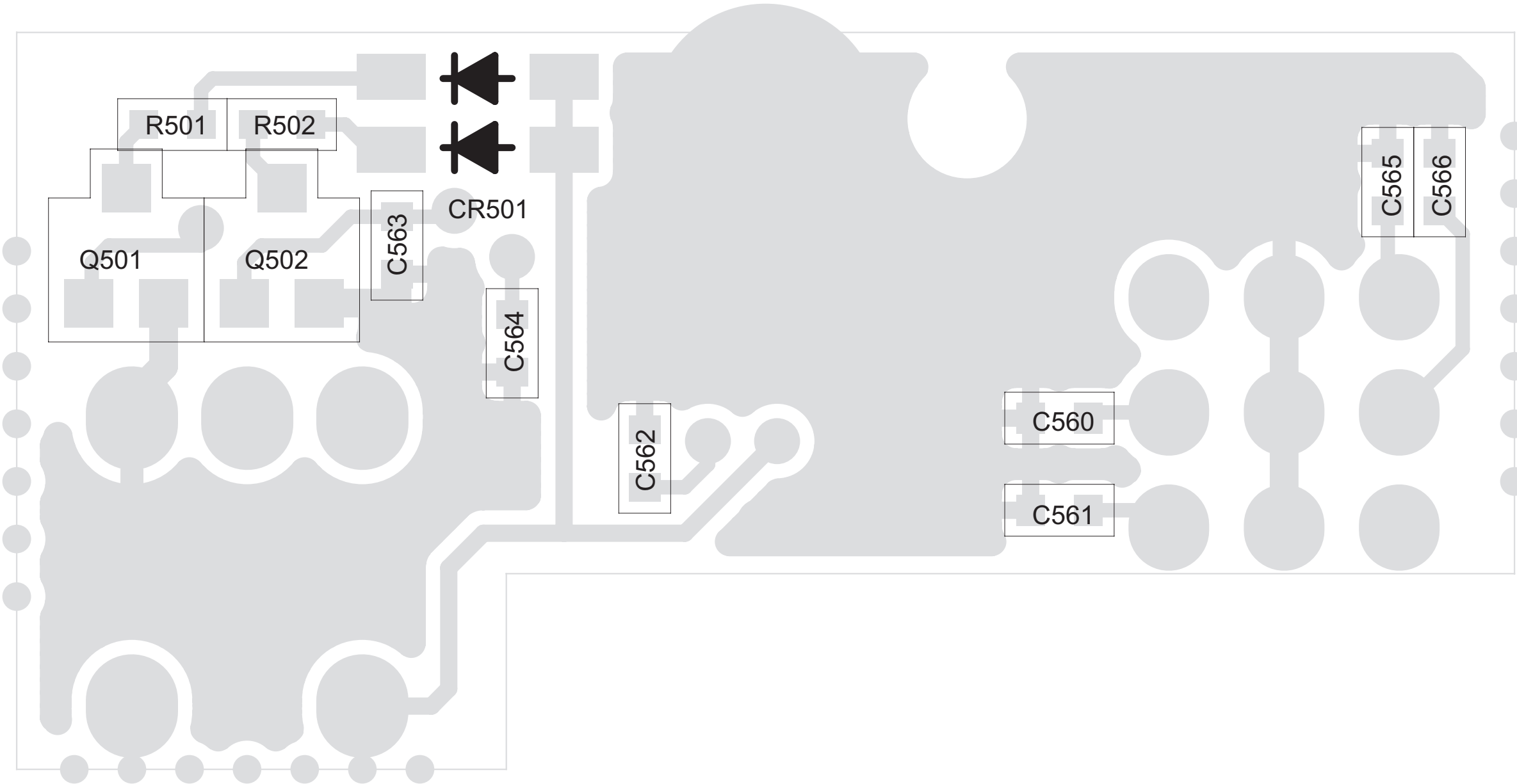


Figure 7-55. UHF2 (435–470 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

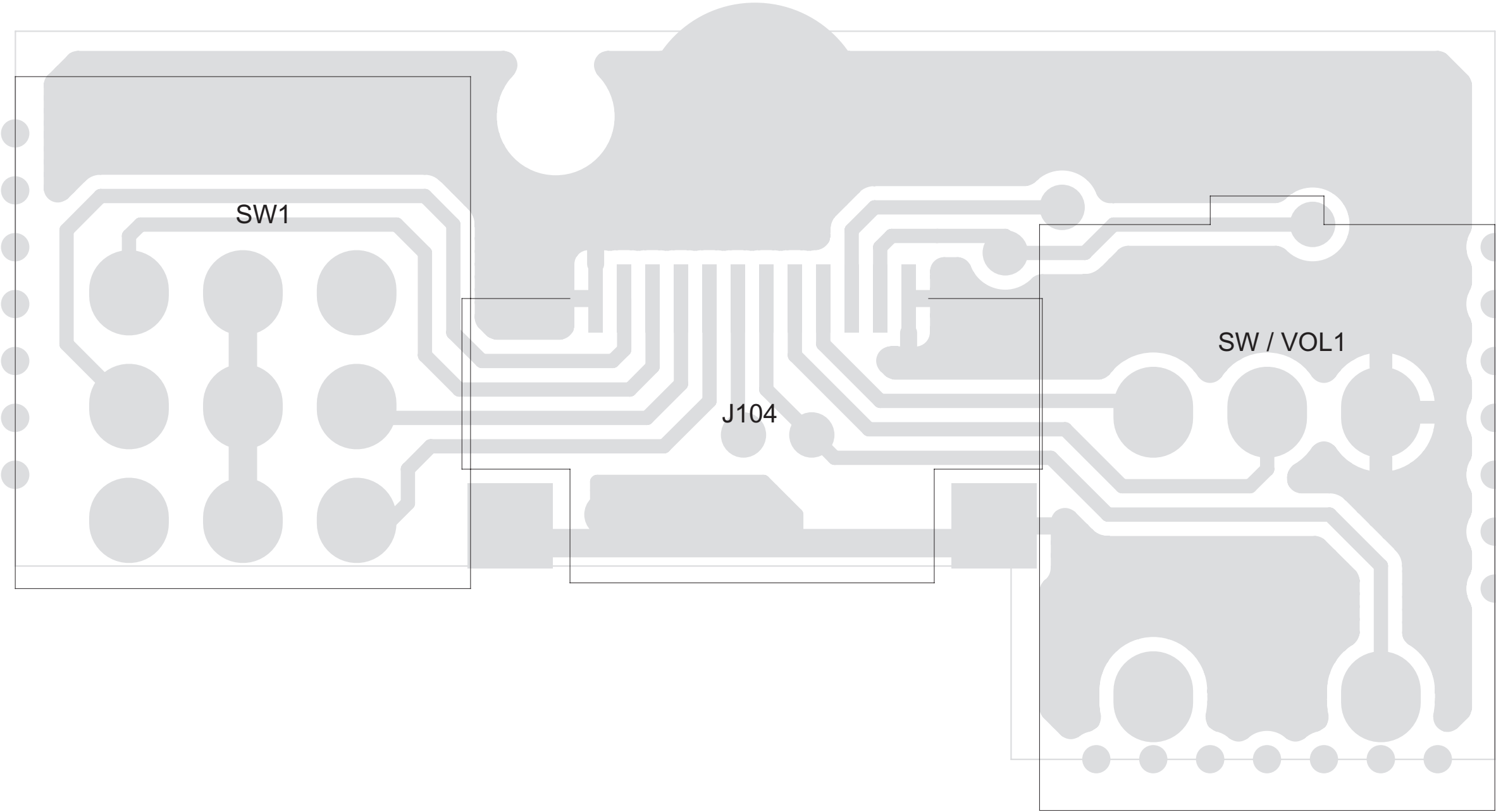


Figure 7-56. UHF2 (435–470 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

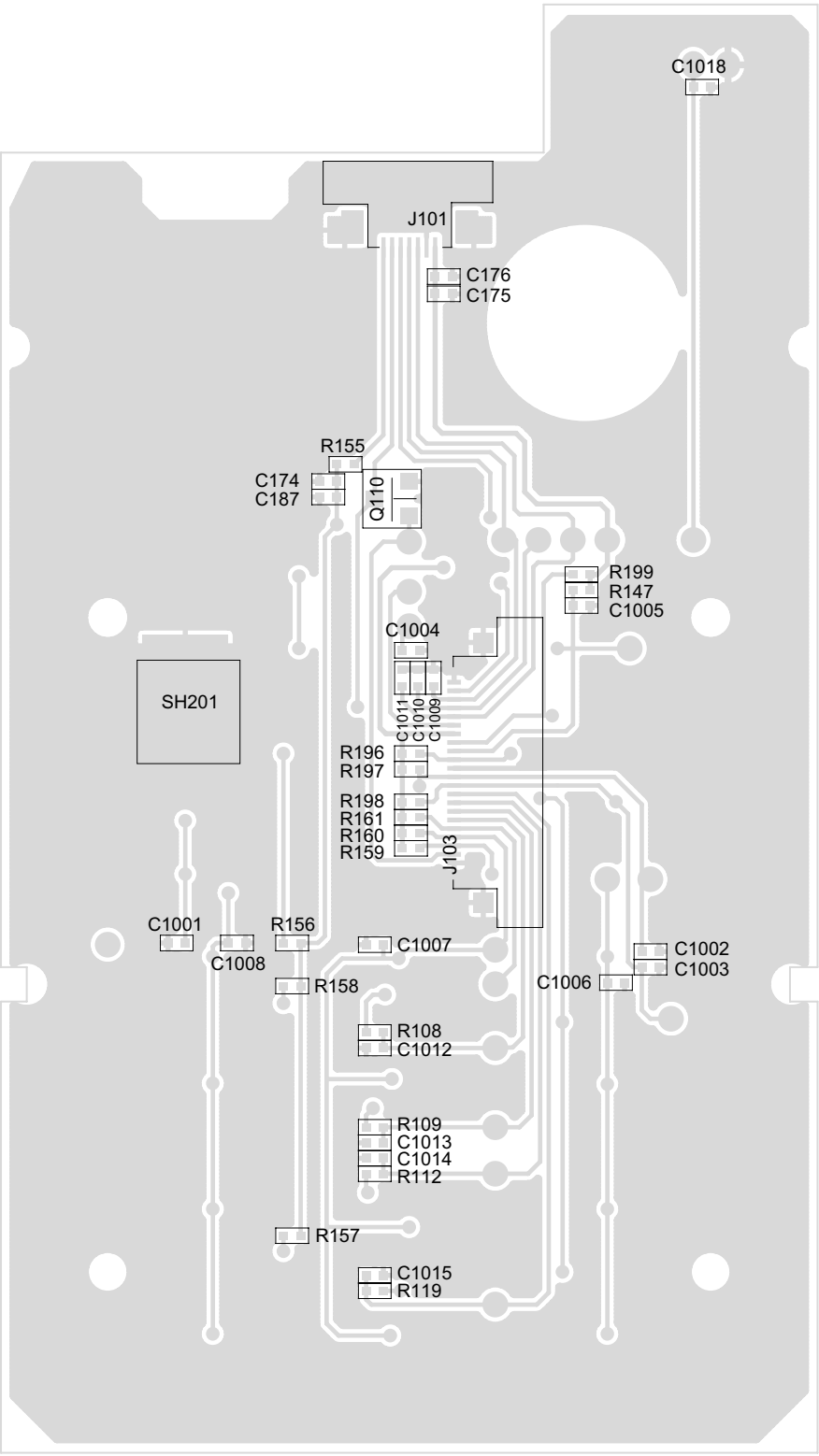
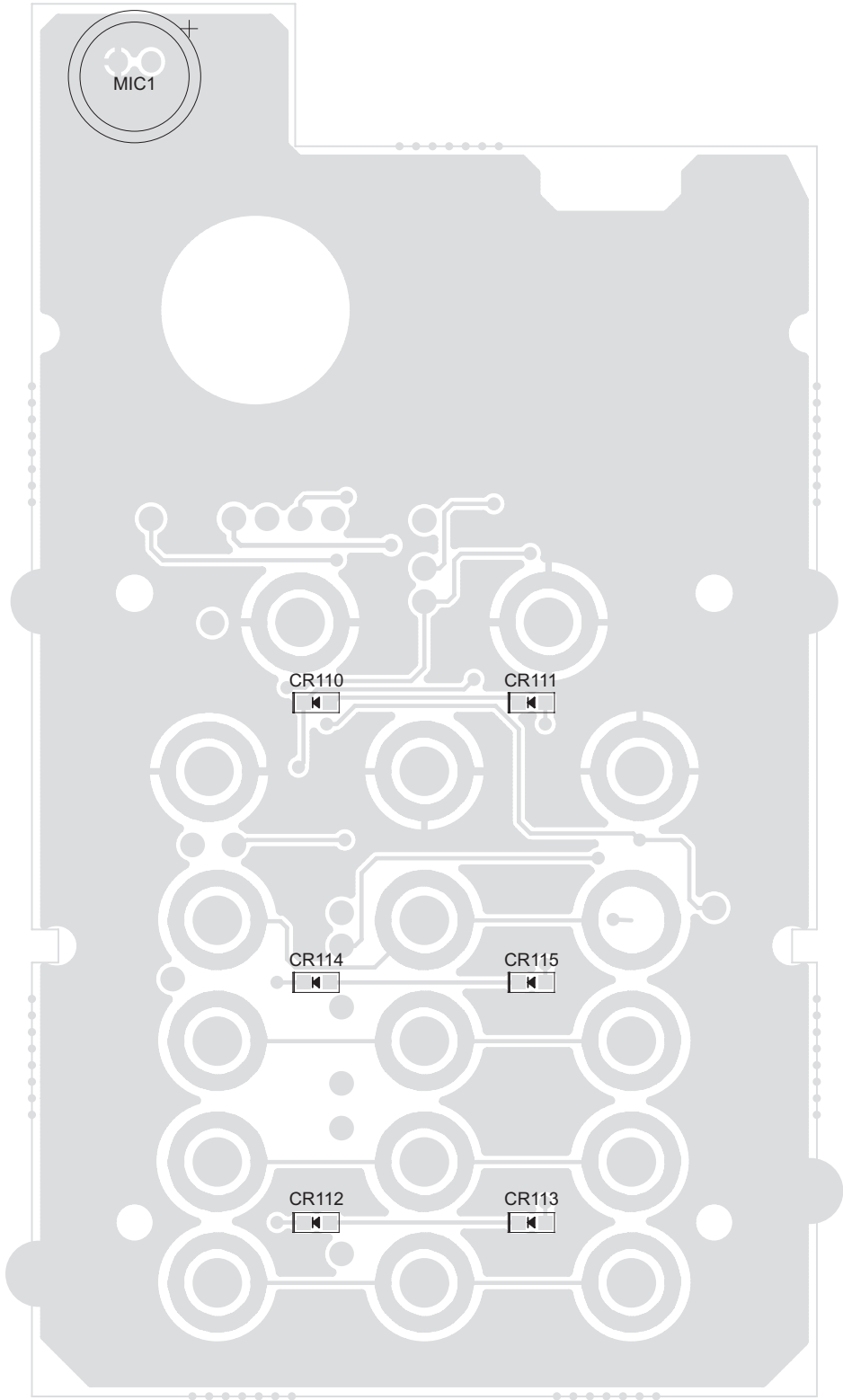


Figure 7-57. UHF2 (435–470 MHz) Keypad Board: PCB No. E11-000886-00

7.6.1 Parts List UHF2 MDC/QCII R&TTE (435–470 MHz)

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C123	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-000070-00	Chip Cap, 1005 K 105PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0303-0	Chip Cap, 1005 J 82PF
C204	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C301	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C303	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C307	TDK	E02-000108-00	Chip Cap, 1005 J 15PF
C310	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C312	TDK	E02-000475-00	Chip Cap, 1005 D 8PF
C318	TDK	E02-000142-00	Chip Cap, 1005 J 20PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C326	TDK	E02-000019-00	Chip Cap, 1005 C 7PF
C327	TDK	E02-000475-00	Chip Cap, 1005 D 8PF
C329	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C330	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C331	TDK	E02-000177-00	Chip Cap, 1005 J 24PF
C332	MURATA	E02-000091-00	Chip Cap, 1005 J 11PF 10V
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C341	TDK	E02-000303-00	Chip Cap, 1005 J 82PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C343	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C410	TDK	E02-000643-00	Chip Cap, 1608 J 27PF	C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C347	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C413	TDK	E02-0182-0	Chip Cap, 1608 J 27PF	C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C351	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C416	TDK	E02-000020-00	Chip Cap, 1608 D 7PF	C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C355	MURATA	E02-000907-00	Chip Cap, 1005 J 16PF 10V	C417	TDK	E02-000563-00	Chip Cap, 1608 J 13PF	C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C356	TDK	E02-000457-00	Chip Cap, 1005 C 5PF	C418	TDK	E02-0109-0	Chip Cap, 1608 J 15PF	C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C420	MURATA	E02-000955-00	Chip Cap, 1608 J 11PF 10V	C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C358	TDK	E02-0125-0	Chip Cap, 1005 J 18PF	C422	TDK	E02-0094-0	Chip Cap, 1608 J 12PF	C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF	C426	TDK	E02-0020-0	Chip Cap, 1608 C 7PF	C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C361	TDK	E02-000108-00	Chip Cap, 1005 J 15PF	C427	TDK	E02-0012-0	Chip Cap, 1608 C 4PF	C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C362	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C428	TDK	E02-0020-0	Chip Cap, 1608 C 7PF	C474	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C363	TDK	E02-000464-00	Chip Cap, 1005 C 6PF	C429	TDK	E02-0012-0	Chip Cap, 1608 C 4PF	C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C431	TDK	E02-0042-0	Chip Cap, 1608 J 1000PF	C502	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C365	TDK	E02-000464-00	Chip Cap, 1005 C 6PF	C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C376	TDK	E02-000233-00	Chip Cap, 1005 J 47PF	C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C378	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF	C507	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C379	TDK	E02-000575-00	Chip Cap, 1005 J 18PF	C436	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C508	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C511	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C383	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C445	TDK	E02-0010-0	Chip Cap, 1608 C 3PF	C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C385	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C446	TDK	E02-0012-0	Chip Cap, 1608 C 4PF	C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C386	TDK	E02-000457-00	Chip Cap, 1005 C 5PF	C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C516	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C387	TDK	E02-000457-00	Chip Cap, 1005 C 5PF	C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C388	TDK	E02-000019-00	Chip Cap, 1005 C 7PF	C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C390	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C451	TDK	E02-0010-0	Chip Cap, 1608 C 3PF	C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C452	TDK	E02-000689-00	Chip Cap, 1608 J 39PF	C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C454	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)	C522	TDK	E02-000308-00	Chip Cap, 1005 K 8200PF
C404	TDK	E02-000009-00	Chip Cap, 1005 C 3PF	C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C405	TDK	E02-000108-00	Chip Cap, 1005 J 15PF	C461	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C406	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C525	TDK	E02-000676-00	Chip Cap, 1005 K 3300PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF	C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF	C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF	C711	MURATA	E02-000106-00	Chip Cap, 1005 J 13PF 10V
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C714	TDK	E02-0125-0	Chip Cap, 1005 K 1000PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C715	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF	C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C539	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF	C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF	C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C724	MURATA	E02-000091-00	Chip Cap, 1005 J 11PF 10V
C543	TDK	E02-000308-00	Chip Cap, 1005 K 8200PF	C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C545	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF	C726	TDK	E02-000485-00	Chip Cap, 1005 C 0.5PF
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C727	TDK	E02-000444-00	Chip Cap, 1005 C 2PF
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C728	TDK	E02-000464-00	Chip Cap, 1005 D 6PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C618	AVX	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)	C729	TDK	E02-000464-00	Chip Cap, 1005 D 6PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C551	AVX	E02-0347-0	Chip Tantal, 10uF-M/10V(A)	C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF	C731	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C560 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF	C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C561 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C562 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C563 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C564 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF	C742	TDK	E02-000142-00	Chip Cap, 1005 J 20PF
C565 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C701	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C566 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C705	TDK	E02-000444-00	Chip Cap, 1005 C 2PF	C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C706	TDK	E02-000009-00	Chip Cap, 1005 C 3PF	C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C707	TDK	E02-000481-00	Chip Cap, 1005 D 9PF	C751	AVX	E02-0339-0	Chip Tantal, 1uF-M/35V(A)
				C709	TDK	E02-000454-00	Chip Cap, 1005 C 4PF	C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C753	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF	C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CF2	BGTech	E17-000058-00	CQ, Ceramic Filter, LTWC455H
C754	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF	C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR110 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR111 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR112 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
C1001 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR113 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
C1002 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR114 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
C1003 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR115 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
C1004 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR116	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
C1005 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR117	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
C1006 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR201	KEC	E06-0005-0	SWITCH DIODE, KDS 181
C1007 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR202	KEC	E06-0005-0	SWITCH DIODE, KDS 181
C1008 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR301	KEC	E06-0002-0	SWITCH DIODE, KDS-114
C1009 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR305	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
C1010 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR306	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
C1011 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1040	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR307	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
C1012 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1041	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR309	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
C1013 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1042	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR310	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
C1014 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1043	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR311	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
C1015 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1100	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	CR312	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C1101	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	CR313	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C1102	TDK	E02-0162-0	Chip Cap, 1005 K 223PF	CR314	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
C1018 ^{1,2,3}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF	C1103	TDK	E02-0162-0	Chip Cap, 1005 K 223PF	CR315	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1104	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	CR316	BGTech	E06-0159-0	SCHOTTKY DIODE, HSMS-2829
C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1105	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF				
C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1200	TDK	E02-0057-0	Chip Cap, 1005 K 104PF				
C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1201	TDK	E02-0134-0	Chip Cap, 1005 K 183PF				
C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1202	TDK	E02-0165-0	Chip Cap, 1005 K 224PF				
C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1203	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF				
C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C1204	TDK	E02-0165-0	Chip Cap, 1005 K 224PF				
				C1205	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF				
				C1206	TDK	E02-0070-0	Chip Cap, 1005 K 105PF				
				CF1	BGTech	E17-000057-00	CQ, Ceramic Filter, LTWC455F				

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T	J603	BGTech	E10-0099-0	MOLEX, CONNECTOR, 53047-0210	L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR501 ^{1,2,3}	BRIGHT LED	E07-0041-0	LED DIODE, BL-HEIG033B-TR	L301	DEARIM	E03-0063-0	Coil Air, 0.45-1.4-5TL	L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR701	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N	L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
CR702	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	L306	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33N	L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR703	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)	L310	TAIYOYUDEN	E03-000112-00	Chip Ind, 1005 J 27N	L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
DEC1	BGTech	E17-000069-00	CQ, Discriminator, JTBC455CX	L320	DELTA	E03-000378-00	Chip Ind, 2012 22NH	L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
F-CABLE1	BGTech	E15-0042-0	SNAGGWA, BEACON FLAT CABLE, FF12-22N080XXA	L323	DELTA	E03-000377-00	Chip Ind, 2012 18NH	L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
F-CABLE2	BGTech	E15-0174-0	SNAGGWA, , BEACON FLAT CABLE, FF12-12N040XXA	L324	DELTA	E03-000378-00	Chip Ind, 2012 22NH	L706	DAERIM	E03-000009-00	Coil Air, 0.3-1.0-3TL
FL101	BGTech	E08-000152-00	SHINSUNG, Crystal, 14.7456MHz	L325	DELTA	9270022111820	Chip Ind, 2012 220NH	L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
FL102	BGTech	E08-0036-0	SHINSUNG, Crystal, 3.5795MHz (H : 2.8mm)	L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH	L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
FL201	BGTech	E08-0043-0	SHINSUNG, Crystal, 44.645MHz (SMD)	L328	DELTA	E03-000377-00	Chip Ind, 2012 18NH	L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
FL301	BGTech	E17-0026-0	SHINSUNG, Crystal Filter, MCF 45.15S12.B (8.5KHz)	L329	BGTech	E03-0185-0	TOKO, #617PT-1667	LCD101	BGTech	E20-0092-0	EVERRVIEW,VBS3208A2-7FWLYA,REV4.0
FL701	BGTech	E08-0055-0	SHINSUNG, VCTCXO, 12.8 MHZ	L331	TAIYOYUDEN	E03-000112-00	Chip Ind, 1005 J 27N	MIC1 ^{1,2,3}	BGTech	E19-0009-0	BSE, C-MIC, 6.0*2.7/ 2.2KO,2V,-44±3dB, Pin type
J101 ^{1,2}	BGTech	E10-0167-0	YUNHO, FPC CONNECTOR, 05004HR-07C01S(G)	L332	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 K 220NH	PB501	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
J102	BGTech	E10-0173-0	YUNHO, FPC CONNECTOR, 05004HR-22A01S	L333	BGTech	E03-0185-0	TOKO, #617PT-1667	PB502	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
J103 ^{1,2,3}	BGTech	E10-0171-0	KYOCERA, FPC CONNEC-TOR, 04-6292-022-000-800+	L334	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?	PB503	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
J104 ^{1,2,3}	BGTech	E10-0169-0	OMIRON, FPC CONNECTOR, XF2M-1215-1A	L340	DELTA	9270820N11820	Chip Ind, 2012 820NH	Q101	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
J105	BGTech	E10-0349-0	YUNHO, FPC CONNECTOR, 05004HR-12B01S(G)	L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH	Q102	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
J601	BGTech	E10-0014-0	CHI CHENG, SPK MIC JACK, 0980683Z01-D	L402	TAIYOYUDEN	E03-000084-00	Chip Ind, 1608 J 12nH	Q103	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
J602	BGTech	E10-0081-0	SUYIN, BATTERY CONNEC-TOR, 060031MA005G500PL	L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ	Q104	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
				L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH	Q110 ^{1,2}	KEC	E05-0015-0	KRC 404 BJT NPN Transistor
				L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q111	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
				L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH	Q112	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
				L409	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q113	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
				L410	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q114	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
				L411	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q120	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
				L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q121	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
				L413	DEARIM	E03-0051-0	Coil Air, 0.35-1.6-7TL	Q122	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
				L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q201	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
				L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH				
				L603	BGTech	E03-0328-0	Chip Ferrite Beads, MMZ1608Y600B				

Circuit Ref.	Supplier	Supplier Part No.	Description
Q202	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q206	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q301	KEC	E05-0065-0	2SC4901 BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q308	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
Q405	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q406	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q407	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q408	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q409	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q501 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q502 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q503	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q504	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q505	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q601	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q602	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q701	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q702	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q703	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q704	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q705	KEC	E05-0028-0	KRA 305 BJT PNP Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q706	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q707	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q708	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q709	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q710	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q711	KEC	E05-0027-0	KRA 304 BJT PNP Transistor
Q1100	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q1200	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150K?
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270K?
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2K?
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150K?
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R133	KAMAYA	E01-000184-00	Chip Res, 1005 J 220K?
R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9M?
R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220K?
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68K?
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1M?
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R147 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1M?
R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470K?
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10K?
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12K?
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680?
R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KO
R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47K?
R155 ^{1,2}	KAMAYA	E01-0284-1	Chip Res, 1005 J 470?
R156 ^{1,2}	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R159 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R160 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	R197 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R161 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	R198 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820?	R199 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22K?	R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R204	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?	R339	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?	R206	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?	R341	KAMAYA	E01-000103-00	Chip Res, 1005 J 150?
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R342	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5K?
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R208	KAMAYA	E01-000056-01	Chip Res, 1005 J 10K?	R343	TAIYOYUDEN	E03-0308-0	Chip Ind, 1005 J 2.2uH
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2K?	R210	KAMAYA	E01-000358-00	Chip Res, 1005 J 68K?	R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180?
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R211	KAMAYA	E01-000157-00	Chip Res, 1005 J 20K?	R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39?
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R212	KAMAYA	E01-000205-00	Chip Res, 1005 J 27K?	R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180?
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R213	KAMAYA	E01-000025-01	Chip Res, 1005 J 0?	R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R405	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51K?	R217	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?	R406	KAMAYA	E01-0165-0	Chip Res, 1005 J 22?
R176	KAMAYA	E01-000205-00	Chip Res, 1005 J 27K?	R220	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?	R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R177	KAMAYA	E01-000112-01	Chip Res, 1005 J 15K?	R230	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3K?	R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2K?
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51K?	R258	KAMAYA	E01-000386-00	Chip Res, 1005 J 8.2K?	R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56K?	R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560?
R181	KAMAYA	R01-000025-01	Chip Res, 1005 J 0?	R309	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?	R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200K?	R310	KAMAYA	E01-000289-01	Chip Res, 1005 J 4.7K?	R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?	R311	KAMAYA	E01-000199-00	Chip Res, 1005 J 270?	R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?	R312	KAMAYA	E01-0119-0	Chip Res, 1005 J 150K?	R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220O
R189	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?	R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KO
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?	R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?	R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1O
R191	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?	R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KO
R192	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?	R317	KAMAYA	E01-000184-00	Chip Res, 1005 J 220K?	R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KO
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R318	KAMAYA	E01-000172-00	Chip Res, 1005 J 2.2K?	R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	R319	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3K?	R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KO
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?	R320	KAMAYA	E01-000103-00	Chip Res, 1005 J 150?	R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KO
R196 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?	R423	KAMAYA	E01-000271-00	Chip Res, 1005 J 3.9M?
								R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R427	KAMAYA	E01-000063-01	Chip Res, 1005 J 100K?
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6K?
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27K?
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150?
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R501 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R502 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56K?
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 K?
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12K?
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6K?
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2K?
R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20K?
R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20K?
R516	KAMAYA	E01-000201-00	Chip Res, 1005 J 2.7K?
R517	KAMAYA	E01-000323-00	Chip Res, 1005 J 5.6K?
R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?

Circuit Ref.	Supplier	Supplier Part No.	Description
R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1M?
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30K?
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47K?
R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 K?
R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82K?
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82K?
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R538	KAMAYA	E01-000352-00	Chip Res, 1005 J 6.8K?
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2O
R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390K?
R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2O
R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?
R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39K?
R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560?
R701	KAMAYA	E01-0315-1	Chip Res, 1005 J 56?

Circuit Ref.	Supplier	Supplier Part No.	Description
R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7K?
R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7K?
R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7K?
R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8K?
R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30K?
R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56?
R715	KAMAYA	E01-000042-01	Chip Res, 1005 J 100?
R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300?
R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5K?
R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150?
R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150?
R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390?
R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?
R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7K?
R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7K?
R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?
R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?	R1210	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	U508	BGTech	E04-0263-0	MIRCO CHIP,DIGITAL POTENTIOMETER, MCP4011(503)
R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?	R1211	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	U601	BGTech	E04-0109-0	PHILIPS, AUDIO AMP,TDA8541
R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?	R1212	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?	U701	BGTech	E04-0024-0	FUJISU, PLL IC, MB15E03SLPFV1-(ER)-E1
R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?	R1213	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?	U1100	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?	RT202	TAIYOYUDEN	E01-001138-00	Thermistor, 102K	U1102	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	SPK1	BGTech	E21-0018-0	SHINMYUNG, Speaker, 24O 1.0W 36F(Connector type)	U1200	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1K?	SW/ VOL1 ^{1,2,3}	BGTech	E01-1032-0	TOKOS, Switch Volume, RY-8418 Rev1	U1201	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
R1003	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?	SW1 ^{1,2}	BGTech	E09-000048-00	TOKOS, Channel Switch Volume, RY-8487	PCB1	BGTech	E011-001016-00	CAFSYSTEM, Main PCB, FR4 4 Layer PCB Rev.#MP02
R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	U101	BGTech	E04-000754-00	RENESAS ,CPU IC, M3030RFGPGP	SUB PCB1 ^{1,2,3}	BGTech	E11-000002-02	CAFSYSTEM, Sub PCB, 1.2T 2Layer
R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	U102	BGTech	E04-0114-0	ASAHI KASEL, AUDIO LSI, AK2347	KEY PCB1 ^{1,2,3}	BGTech	E11-000886-00	CAFSYSTEM, Key PCB, 1.2T 2Layer
R1101	KAMAYA	E01-0152-0	Chip Res, 1005 J 2K?	U103	BGTech	E04-0265-0	ZERLINK, DTMF RECEIVER, MT88L70	<div>Note</div> <div><div>1.</div>For PMUE3952AAE Model</div> <div><div>2.</div>For PMUE3953AAE Model</div> <div><div>3.</div>For PMUE3954AAE Model</div>			
R1102	KAMAYA	E01-0209-0	Chip Res, 1005 J 270K?	U104	BGTech	E04-000755-00	MIRCO CHIP, EEPROM IC, 24LC128L				
R1103	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?	U105	JRC	E04-0185-0	OP AMP, NJM324				
R1104	KAMAYA	E01-0205-0	Chip Res, 1005 J 27K?	U106	BGTech	E04-0211-0	TOSHIBA, Analog SW IC, TC7S66FU				
R1105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	U107	BGTech	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT				
R1106	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	U201	BGTech	E04-000890-00	AGAMEM, FM IC, AA32416				
R1107	KAMAYA	E01-0298-0	Chip Res, 1005 J 470K?	U202	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)				
R1108	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?	U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358				
R1109	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?	U402	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)				
R1110	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?	U501	JRC	E04-0185-0	JRC, OP AMP, NJM324				
R1111	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?	U502	JRC	E04-0185-0	JRC, OP AMP, NJM324				
R1112	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?	U505	BGTech	E04-0150-0	TOKO, REGULATOR IC, TK11250AMTL				
R1200	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2K?	U506	BGTech	E04-0588-0	TOKO, REGULATOR IC, TK11233AMTL				
R1201	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?	U507	BGTech	E04-0207-0	MICRO CHIP, VOLTAGE DOUBLER, TC1240				
R1202	KAMAYA	E01-0205-0	Chip Res, 1005 J 27K?								
R1203	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?								
R1204	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?								
R1205	KAMAYA	E01-000289-01	Chip Res, 1005 J 4.7K?								
R1206	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?								
R1207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?								
R1208	KAMAYA	E01-0298-0	Chip Res, 1005 J 470K?								
R1209	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?								

Notes

Chapter 8 136 – 174 MHz VHF Theory of Operation

8.1 Introduction

This chapter provides a detailed theory of operation for the radio components. Schematic diagrams for the circuits described in the following paragraphs are located in Chapter 10 of this manual.

8.2 VHF Receiver

The VHF receiver design covers the frequency range of 136 – 174 MHz and it is a double conversion super heterodyne with 1st IF 45.1 MHz and 2nd IF 455 kHz. The receiver is divided into two major blocks, Front End and Back End as shown in Figure 8-1.

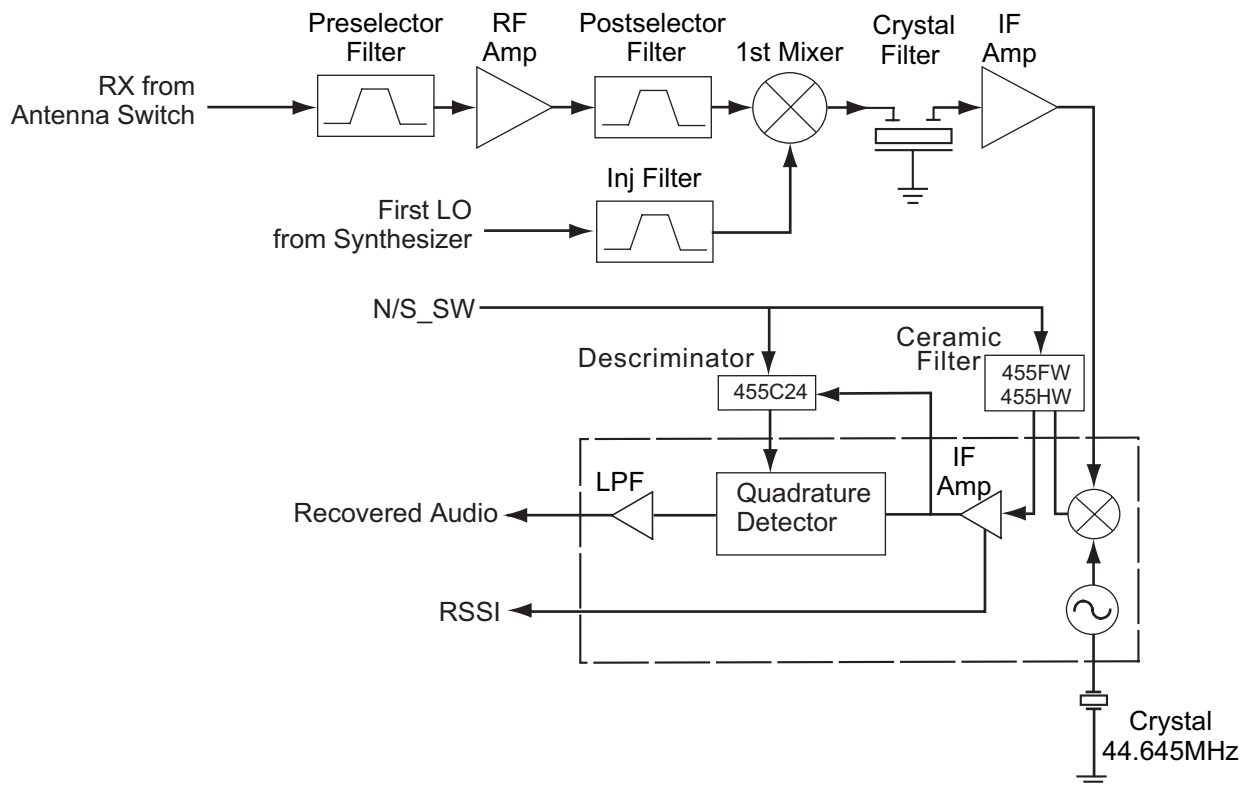


Figure 8-1. VHF Receiver Block Diagram

8.2.1 Receiver Front End

Incoming RF signals from antenna are first routed through the harmonic filter (L409, L410, L411, C426, C427, C428, C429, C445, C446) and antenna switch (CR301), part of the transmitter circuitry, before being applied to the receiver front end. The receiver front end consists of preselector filter, RF amplifier, post-selector filter and a single-balanced mixer.

The preselector filter is a varactor-tuned 2-pole design using discrete elements (L301, L302, L303, L304, C301, C304, C305, C307) in a shunt or series resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR302 and CR303, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when high-side local injection is used. The frequency is separated into 6 steps and controlled by CPU (136 – 174 MHz).

The output of this filter is matched to the base of RF amplifier Q301 which provides 15dB of gain.

The output of the RF amplifier is applied to the post-selector filter. The post-selector filter designed using discrete elements (L307, L308, L309, L311, C315 and C354) in a series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR305 and CR307, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when low-side local injection is used. The frequency is separated into 6 steps and controlled by CPU (136 – 174 MHz).

The output of the post selector is connected to the single-balanced mixer consisting of components L329, L333, Q306 and Q307. 1st local signal generated from VCO is filtered by injection filter (L310, L331, C325, C326, C327, C333 and C365) to remove second harmonics. The converted 1st IF frequency at mixer passes through L331 and matches the 45.1 MHz IF signal to pair crystal filter (FL301).

8.2.2 Receiver Back End

The 1st IF signal is amplified about 15 dB by IF amp Q303. The output of the IF amp is connected to IF IC (U201). 1st IF frequency (45.1 MHz) and 2nd LO frequency (44.645 MHz) are mixed in U201. The second mixer converts the 45.1 MHz high IF frequency to 2nd IF frequency (455 kHz).

Additional IF selectivity is provided by two ceramic filters (CF1, CF2). The wider filter 455 FW is used for 20 kHz and 25 kHz channel spacing, and the narrower filter 455 HW is used for 12.5 kHz channel spacing. These two ceramic filters may eliminate undesired signal and demodulated by demodulator in U201. N/S_SW which connected to microprocessor is used to select the wide and narrow band.

The mute (squellch) circuit switches off the audio amplifier when no audio is present. The squellch circuit consists of U201 and U202 and their associated components. The noise signal from pin 9 of U201 is used to control the squellch circuit sensitivity of U202. The noise passes through filter, and is amplified by internal amp of U201. The amplified noise act as a DC voltage to control the mute system. So if the noise level is under the threshold voltage, the microprocessor (U101) un-mutes the radio. If the noise level is over the threshold voltage, the microprocessor mutes the radio. The squellch level is tuned in the factory. When a component or a part in the RX system is replaced, the squellch must be re-tuned using the Tuner.

8.3 VHF Transmitter

The VHF transmitter covers the range of 136 – 174 MHz. Depending on model, the output power of the transmitter is switchable on a per-channel basis between high power (5 Watts) and low power (1 Watt). The transmitter is divided into four major blocks as shown in Figure 8-2.

- Power Amplifier
- Harmonic Filter
- Power Control

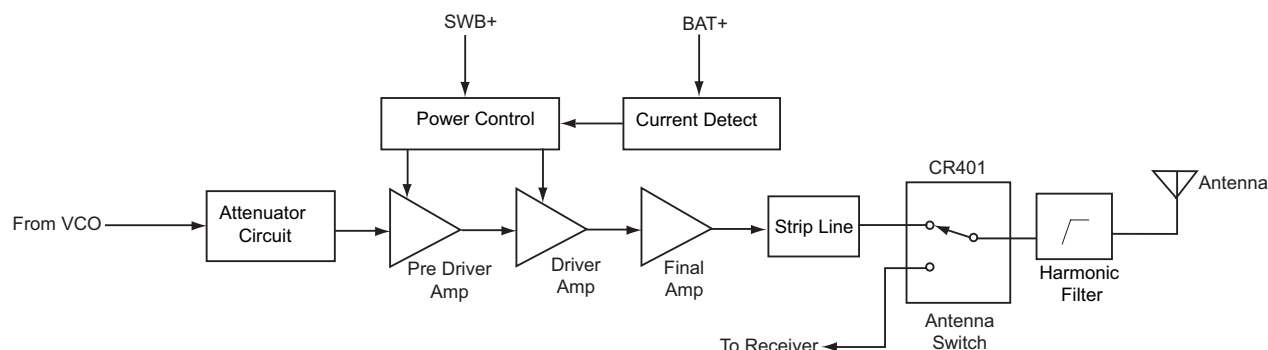


Figure 8-2. VHF Transmitter Block Diagram

8.3.1 Power Amplifier

The transmitter power amplifier has three stages of amplification – Pre Driver (Q401), Driver Amp (Q402) and Final Amp (Q403). Signal from TX VCO is applied to the pre driver via an attenuator circuit. The attenuator is pie style resistor attenuator, and is used as isolation between VCO and the power amps. The -3dBm TX RF signal from attenuator is then amplified by pre driver and driver amp to around +28dBm and is applied to the final amp. The final amp (Q403) is an enhancement-mode N-channel MOSFET device providing a gain of 12dB. The device drain current is drawn directly from the DC battery supply voltage input via L413. A matching network consisting of C417, C418, C419, C420, C455 and a strip line, transforms the impedance to approximately 50 Ohm.

8.3.2 Antenna Switch

An antenna switch works mainly as a switching device between transmit and receive paths. In transmit mode (PTT), Q407 is turned on and both PIN diodes (CR401, CR301) are forward biased into conduction. This enables the RF signal to pass to the harmonic filter and then to the antenna. In the receiver mode, both diodes are off. Signals applied to the antenna jack are routed via the LPF (harmonic filter), through a TX Low Pass Filter (L409 – L411, C426 – C430, C445 and C446), to the receiver input.

8.3.3 Harmonic Filter

The harmonic filter consists of components L409 – L411, C426 – C430, C445 and C446. The harmonic filter is a seven-pole elliptic filter.

8.3.4 Auto Power Control

The APC keeps the current supply constant to the final amp (Q403). The drain current of Q403 (final amp) is sensed across resistor R417. The voltage difference across R417. The differential signal at the output of U401 (pin 7) is passed to Q404 and Q405 that produces a constant power output to the antenna. If the current is changed due to change of battery voltage or load, APC controls gate voltage of Q403 and collector voltage of Q401 and drain voltage of Q402 to keep TX power stable. This circuit stabilizes TX power at a pre-determined level adjusted by U402. This bias voltage is tuned in the factory. If the transistor (Q403) is replaced, the RF Output Power must be tuned. By tuning the RF output power, the bias voltage will be tuned through U402. Extra care has to be taken during the tuning process. Do not exceed the maximum allowed bias voltage.

8.4 VHF Frequency Generation Circuitry

The PLL synthesizer subsystem consists of the reference oscillator (VCTCXO), VCO, PLL IC, Charge Pump and Loop Filter.

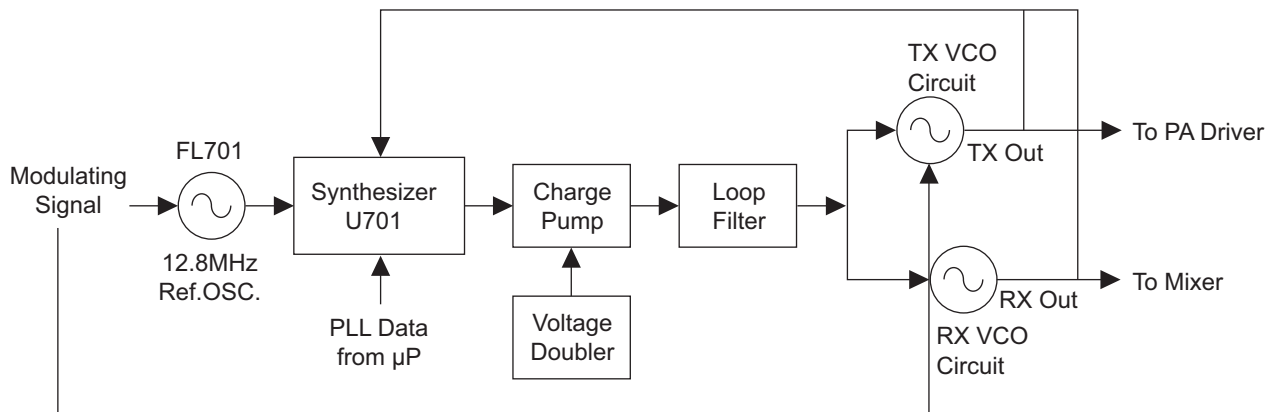


Figure 8-3. VHF Frequency Generation Unit Block Diagram

8.4.1 Reference Oscillator (12.8 MHz VCTCXO)

The reference oscillator is powered by regulated 5V provided by U505. The reference frequency 12.8 MHz VCTCXO (Voltage Controlled Temperature Compensated Crystal Oscillator) is applied to the PLL IC (U701) via pin 1. Main frequency can be adjusted by chip trimmer of VCTCXO. This frequency provides reference to the PLL IC and has a frequency stability of ± 2.5 PPM (max) at the temperature ranging from -30 to +60 Degree Celsius.

8.4.2 PLL IC Prescaler and Comparator

The reference frequency from VCTCXO is divided to 6.25 kHz or 5 kHz by reference counter, R. The RF signal input from the VCO is divided by prescaler (1/64), divided by N and A counters in PLL IC to determine frequency steps and then supplied to the comparator. The comparison frequency is 6.25/5 kHz. The internal phase comparator compares the phase difference between the reference and VCO signal. When the phase of the reference frequency is leading, Pin15 (R) is the output. When VCO frequency is leading, Pin16 (P) is the output. When P=R, small pulses are the output of the phase detector.

8.4.3 Voltage Doubler and Charge Pump

The voltage doubler (U507) converts 5 V to 10 V and is applied to the charge pump circuitry. The charge pump is used for charging output signals P, R supplied by PLL IC from 0 – 3.3 V to 0 – 10 V. This voltage is used to drive the VCO.

8.4.4 Loop Filter

The loop filter contains C751 – C754, R726 – R728. It reduces the residual side-band noise to get the best signal-to-noise ratio. The output signal from loop filter is applied to VCO.

8.4.5 Dual VCO

The dual VCO module contains a RX VCO and a TX VCO. They are configured as colpitts oscillators and connected to power up through transistor switches. Only one VCO is selected at a time. A steering line voltage between 0.35 V and 9.7 V at varactor CR701 tunes the full RX frequency range from 181.1 MHz to 219.1 MHz, and varactor CR703 tunes the full TX frequency range from 136 MHz to 174 MHz.

In Receiver mode, high signal of RX_EN from pin 71, U101 activates Q305. When Q305 is activated, current flows through the base of Q304 and thus activates the Q705. The varactor CR701 sets the resonance frequency. When there is a change in voltage supplied by loop filter, there is a change in the resonance frequency. L703 is the resonating coil, which forms the tank circuit together with variable cap C710.

In Transmit mode, high signal of TX_EN1 from pin 84, U101 enables current flows through collector of Q503 and thus activates Q706. The varactor CR703 sets the resonance frequency. When there is a change in voltage supplied by loop filter, there is a change in the resonance frequency. L706 is the resonating tuning coil, which forms the tank circuit together with variable cap C722.

8.5 Keypad

Left, Right and P1 to P3 keys are directly connected to microprocessor via 22 pin connector. When any of these keys is pressed, the voltage goes "low" and microprocessor detects it.

For full keypad models, the number keys are in matrix type which consisted of 3 rows and 4 columns. When any of these keys is pressed, the voltage goes "low" and microprocessor interprets the voltage for each key press.

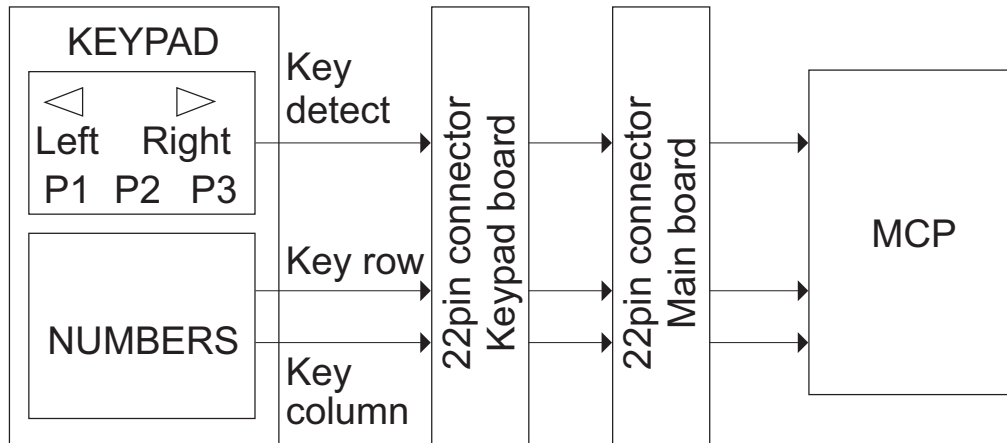


Figure 8-4. Keypad Block Diagram

Chapter 9 VHF Troubleshooting Tables

9.1 Troubleshooting Table for Receiver (VHF)

Table 9-1. Troubleshooting Table for Receiver (VHF)

Symptom	Possible Causes	Procedure	Corrective Action
Radio Dead (no turn-on beep, no LED indication)	1. Battery dead or defective	Substitute good battery or battery eliminator	Change or replace battery.
	2. Defective battery contacts	Inspect battery contacts for corrosion or bent terminals	Clean/Repair/Replace J602
	3. Microprocessor not starting up	Verify clock input to U101 pin 13 is 7.3728 MHz using high impedance probe.	Troubleshoot/Replace FL101.
		Verify U101 pin10(reset) is high.	If reset is Low, troubleshoot regulator U506 or U107.
	4. Regulator fault	Verify U506 pin 4 is 3.3 V	Check for shorts on outputs
		Verify U505 pin 4 is 5.0 V	Troubleshoot/Repair as needed, replace faulty regulator
	5. Flexible Cable fault	Check connection of the 12 pin flexible cable between J104 & J105	Re-assemble or replace flexible cable
No RX Audio (with LED indication)	1. Speaker dead or defective	Substitute a good housing (with speaker)	Change the housing (with accessory)
		Verify J603 connection	Change the housing (with accessory)
	2. Audio Processor IC not starting up	Verify clock input U102 pin 14 is 3.5795 MHz using high impedance probe.	Troubleshoot/Replace FL102
	3. Audio Amp IC not starting up right	Verify U601 pin 6 is battery voltage.	Troubleshoot/Replace U601
		If battery voltage is being supplied to pin 6, then verify audio output at pin5&8.	
No Receive (with no LED indication)	1. IF IC dead or fault	Verify clock input to U201 pin 1&2 is 44.645 Mhz using high impedance probe.	Troubleshoot/Replace FL201
No RX	1. RX-B+	Verify Q304's collector voltage is 4.8V when RX-EN is high.	Check/Replace Q304

9.2 Troubleshooting Table for Synthesizer (VHF)

Table 9-2. Troubleshooting Table for Synthesizer (VHF)

Symptom	Possible Causes	Procedure	Corrective Action
Synthesizer Out of Lock (No RX Mode)	1. Defective 12.8 MHz VCTCXO	Verify clock output FL701 pin 3 is 12.8 MHz using high impedance probe.	Repair/Replace FL701
	2. 1/2VCC defective	Verify FL701 pin 1, U502-B pin 5& U502-D pin 14 voltage is 1.9V.	Troubleshoot: 1/2VCC circuitry
	3. No RX-Enable	Verify U101 pin 71 (RX-EN1) is high.	Check U101 operating
		Verify Q304 collector voltage is approximately 4.7V in RX mode	Troubleshoot: Q304 & Q305 circuitry
Synthesizer Out of Lock (No TX Mode)	4. Check PLL-LD port	Verify U101 pin 27 is Low (Normal Mode)	Troubleshoot: PLL circuitry.
		Verify U101 pin 27 is swept from low to high (Power Save Mode)	Repair/Replace U701
	1. Defective 12.8 MHz VCTCXO	Verify clock output FL701 pin 3 is 12.8 MHz using high impedance probe.	Repair/replace FL701
	2. 1/2VCC defective	Verify FL701 pin 1, U502-B pin 5 & U502-D pin 14 voltage is 1.9V.	Troubleshoot: 1/2VCC circuitry
Synthesizer Out of Lock (No TX Mode)	3. No TX-Enable	Verify U101 pin 84(TX-EN1) is high when PTT is pressed.	Check U101 operating
		Verify Q407 collector voltage is approximately 4.7V when PTT is pressed (TX-EN2).	Check U101-pin 85 is high/ Replace Q407/check LK2 is short
	4. Check PLL-LD port	Verify U101 pin 27 is Low (Normal Mode)	Troubleshoot: PLL circuitry
		Verify U101 pin 27 is swept from low to high (Power Save Mode)	Repair/Replace U701

9.3 Troubleshooting Table for Transmitter (VHF)

Table 9-3. Troubleshooting Table for Transmitter (VHF)

Symptom	Possible Causes	Procedure	Corrective Action
No internal Mic audio	1. Mic dead or defective	Verify audio present (~10mV rms) when speaking into Mic. Check bias of R194 (3.3V).	Replace Mic.
	2. Mic bias fault	Verify U101 pin 78 is 1.1V when PTT button is pressed.	Check/Replace U101
	3. Audio Processor IC not starting up right	Verify clock input U102 pin 14 is 3.5795 MHz using high impedance probe.	Troubleshoot/Replace FL102
No EXT. Mic audio	1. J601 defective	Check connection with EXT mic	Check/Replace J601
	2. Audio Processor IC not starting up right	Verify clock input U102 pin 14 is 3.579545 MHz using high impedance probe.	Troubleshoot/Replace FL102
No transmit (No TX LED indication)	1. PTT switch defective	Verify U101 pin 44 is low when PTT is pressed.	Replace PTT switch PB501
No transmit (TX LED indication OK)	1. Synthesizer out of lock	Refer to Table 9-2	Refer to Table 9-2
	2. No TX-Enable	Verify U101 pin 84 (TX-EN1) is high when PTT is pressed. Verify Q407 collector voltage is approximately 4.7V when PTT is pressed (TX-EN2).	Check U101 pin 85 is high/ Replace Q407/Check LK2 is short
Low Power	1. Low TX injection	Check the RF level at Q7 & C449 per schematic.	Troubleshoot Q409 circuitry & VCO bias
	2. R417 defective	Verify resistance is 0.1 Ohm	Replace R417.
	3. Incorrect control voltage	Verify Q404 collector voltage is approximately 5.5V in low frequency & high power.	Troubleshoot APC circuitry Replace Q404
	4. Q403 defective (High current)	Verify U401 pin 7 is near 0V	Replace Q403
	5. Antenna switch defect	Verify CR401 anode voltage is approximately 1.4V	Check/replace CR401 & CR301
	6. Harmonic filter defective	Visually inspect components C426 – C429, C445, C446, C430	Repair/Replace if necessary
	7. Incorrect power tuning (this has to be performed only after item 1 – 6 has been checked)	Check conducted power	Re-tune power using tuner.
Poor TX range (Conducted power OK)	1. Defective or wrong Antenna.	Verify correct antenna is installed. Try using another antenna.	Replace antenna

9.4 Troubleshooting Table for Board and IC Signals (VHF)

Table 9-4. Troubleshooting Table for Board and IC Signals (VHF)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
U201(IF IC)	1	Osc1	3.9	44.645 MHz input
	2	Osc2	3.3	
	4	VCC	4.7	
	9	Audio frequency	1.2	
	12	RSSI out	Approximately 1	At -47dBm(with conducted)
	13	N-DET(BUSY)	Low	At busy
	15	GND	0	
	16	RF input	1	45.1 MHz input
U701(PLL IC)	1	Reference OSC input	1.4	12.8 MHz input
	4	VCC	3.3	
	6	GND	0	
	7	XF IN	2.2	
	8	F IN	2.2	
	12	Power save	High	
	13	GND	0	
	14	LD_out	High	If pll unlock is low
	15	@P	2.4	
	16	@R	Low	
U601	1	Mode (Mute con)	0	
(Audio Amp.)	2	SVR	3.8	
	3	IN+	3.8	
	4	IN-	3.8	
	5	OUT-	3.8	
	6	VCC	7.5	This voltage depends on Battery
	7	GND	0	
	8	OUT+	3.8	
U103	1	IN+	1.6	

Table 9-4. Troubleshooting Table for Board and IC Signals (VHF) (Continued)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
(DTMF decoder)	2	IN-	1.6	
	3	GS	1.6	
	4	Vref	1.6	
	8	OSC1	1.6	3.579545 MHz input
	10	VSS	0	
	11	TOE	3.3	
	17	STD	High	At DTMF detecting
	18	EST	3.3	
	19	ST/GT	3.3	
	20	VDD	3.3	
FL701(VCTCXO)	1	VCON	1.9	
	2	GND	0	
	3	OSC out	osc	Generate the 12.8 MHz
	4	VCC	5	
Q206(N/S SW)	E	GND	0	
	B	N/S SW	12.5 kHz: Low	
	C	Collector	12.5 kHz: High 25 kHz: Low	
Q304	E	+5V	5	At RX Mode
	B	To Q305 collector	Low	
	C	RX_B+	4.7	
Q305	E	GND	0	At RX Mode
	B	RX_EN	High	
	C	To Q304 base	Low	
Q503	E	GND	0	At TX Mode
	B	TX_EN1	High	
	C	To Q706 base	Low	
Q407	E	+5V	5	At TX Mode
	B	To Q408 collector	Low	
	C	TXVB	4.7	
Q408	E	GND	0	At TX Mode
	B	TX_EN2	High	
	C	To Q407	Low	

Table 9-4. Troubleshooting Table for Board and IC Signals (VHF) (Continued)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
Q601	E	GND	0	
	B	Audio_MUTE_CON	Mute: Low	
			None Mute: High	
	C	Mode	Mute: High	
			None Mute: Low	

1. All voltages are measured with a high-impedance digital voltmeter and expressed in volts DC relative to ground (0V).
2. Voltages are measured with a DC input voltage of 7.50 + .02 volts DC applied to the battery connector (J602).
3. All voltages are measured in the squelched receive mode, unless otherwise indicated.
4. Voltages are identical for VHF and UHF models unless otherwise indicated.

Chapter 10 VHF Schematic Diagrams, Overlays, and Parts Lists

10.1 Introduction

This section provides schematic diagrams, overlays, and parts lists for the radio circuit boards and interface connections.

10.1.1 Notes For All Schematics and Circuit Boards

* Component is frequency sensitive. Refer to the Electrical Parts List for value and usage.

1. Unless otherwise stated, resistance values are in Ohms ($K = 1000$), capacitance values are in nanofarads (nF), picofarads (pF) or microfarads (μF), and inductance values are in nanohenries (nH) or microhenries (μH).
2. DC voltages are measured from point indicated to chassis ground using a Motorola DC multimeter or equivalent. If the board has been removed from the chassis, the transmitter module mounting screws may be used for ground connection. (*Note: The antenna nut bracket is connected to ground.*) Operating mode dependent voltages are followed by (RX) for receive mode, (TX) for transmit mode, (UNSQ) for unsquelched mode, etc.
3. RF voltages on VHF models are measured with a Fluke model 85 RF probe. The indicated voltages expressed in mV (RF) are DC level readings which correspond approximately 1:1 to the RF voltage level in mV rms. RF voltages in the Receiver Front End and Receiver Back End circuits are measured with an on-channel 1mV (-47dBm) RF signal applied to the antenna jack ANT1/ANT.
4. RF voltages on UHF models are measured both with a high-impedance RF voltmeter having a bandwidth in excess of 500 MHz (levels are expressed in dBm) and with a Fluke model 85 RF probe [levels are expressed in mV (RF)]. These indicated voltages are DC level readings which correspond approximately 1:1 to the RF voltage level in mV rms, and are only approximate for UHF frequency measurements. RF voltages in the Receiver Front End and Receiver Back End circuits are measured with an on-channel 1mV (-47dBm) RF signal applied to the antenna jack ANT1/ANT.
5. Audio voltages are measured with a high-impedance AC rms voltmeter. The indicated voltages are expressed in mV rms. Receive mode voltages are followed by (RX) and are measured with an on-channel signal with 1 kHz modulation at 60% deviation (3 kHz for 25 kHz channels, or 1.5 kHz for 12.5 kHz channels). Transmit mode voltages are followed by (TX) and are measured with a 1 kHz, 10 mV rms signal present at the external microphone input (accessory connector J601).

6. Reference Designators are assigned in the following manner:

Ref. No. Series	Circuit Block
101 – 199	Microprocessor & audio control circuits
1001 – 1099	Microprocessor & audio control circuits
201 – 299	IF IC circuit
301 – 399	Front-end and 1st Mixer
401 – 499	Transmit RF stage & Auto power control
501 – 599	Base band & generating circuit
601 – 699	Audio amplifier
701 – 799	VCO & PLL Synthesizer

7. Circuit Block Interconnection Legend:

Name	Description
+5V	5 Volts (Regulated)
+3.3V	3.3 Volts (Regulated)
SWB+	Switched Battery Voltage
BAT+	Unswitched Battery voltage
+10V	Digital 10V(Regulated)
RESET	Low-line reset signal from U107 to U101 Pin 10
TX_EN1	Transmit enable signal from U101 Pin 84
TX_EN2	Transmit enable signal from U101 Pin 85
TXVB	TX operating voltage
TX_AF3	TX audio signal from audio processor IC to TX Audio filter
TX_SUB_TONE	TX sub tone signal from audio processor IC to TX modulation.
RX_B+	RX operating voltage
RSSI	RX signal strength indication from IF IC to U101
Busy	RX detect signal from IF IC to U101
FTV	RX frequency shift voltage
RX_AF1	RX audio signal from IF IC to Audio processor IC
PLL_LD	PLL lock detect signal from PLL IC to U101
N/S SW	Channel space selectable Switch (12.5 kHz/25 kHz)
1/2VCC	1.9 volts (divided by U502-D)

10.1.2 Four Layer Circuit Board

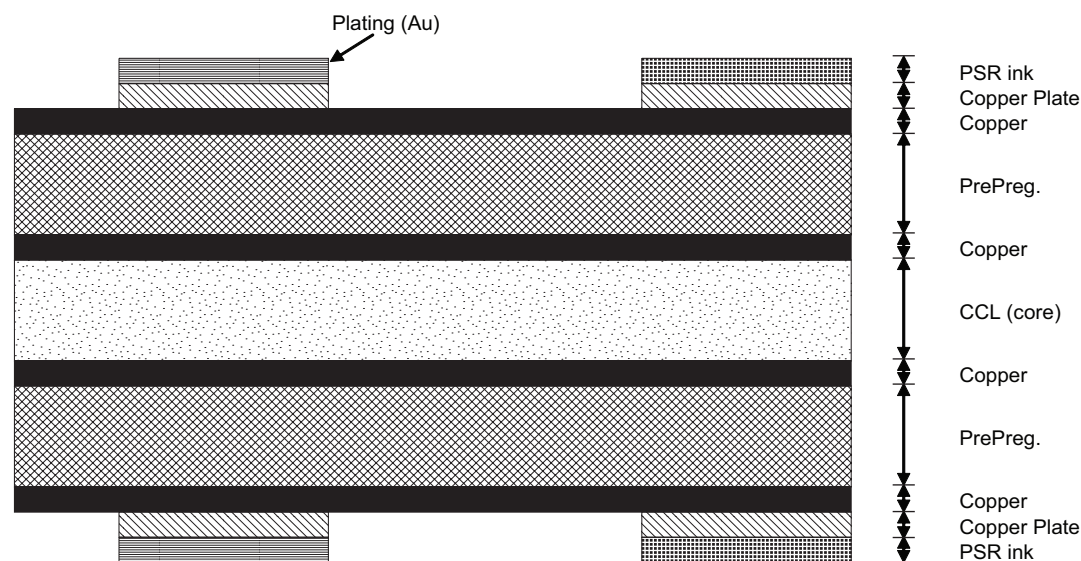


Figure 10-1. Four-Layer Circuit Board: Copper Steps in Layer Sequence

10.2 Speaker and Microphone Schematic

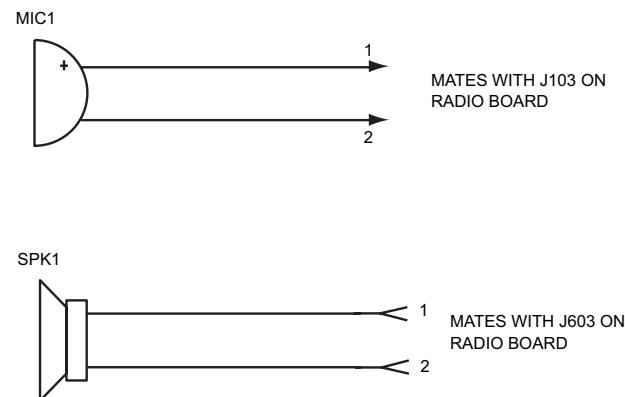


Figure 10-2. Speaker and Microphone Schematic

10.2.1 Speaker and Microphone Parts List

Reference Designator	Motorola Part No.	Description
MIC1	PMDN4139_R	Microphone
SPK1	PMDN4067BR	Speaker & Cable

Notes

10.3 Circuit Board/Schematic Diagram and Parts List (VHF: 136–174 MHz)

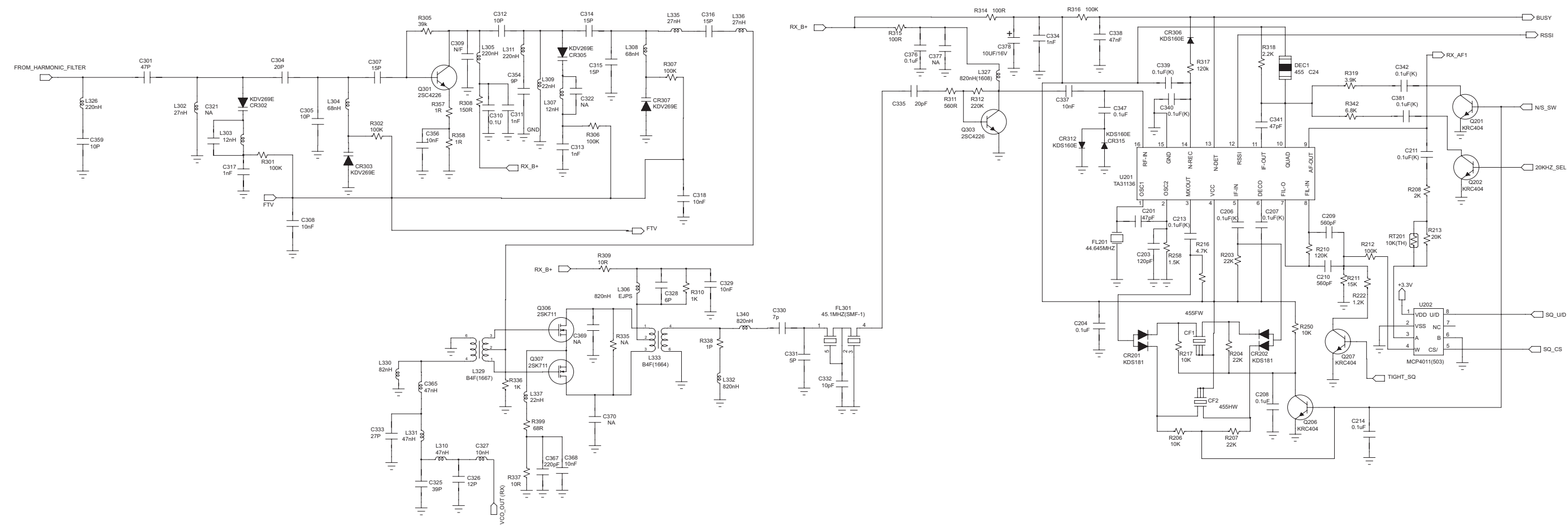


Figure 10-3. VHF (136–174 MHz) Receiver Schematic Diagram (Part No:E11-0762-0)

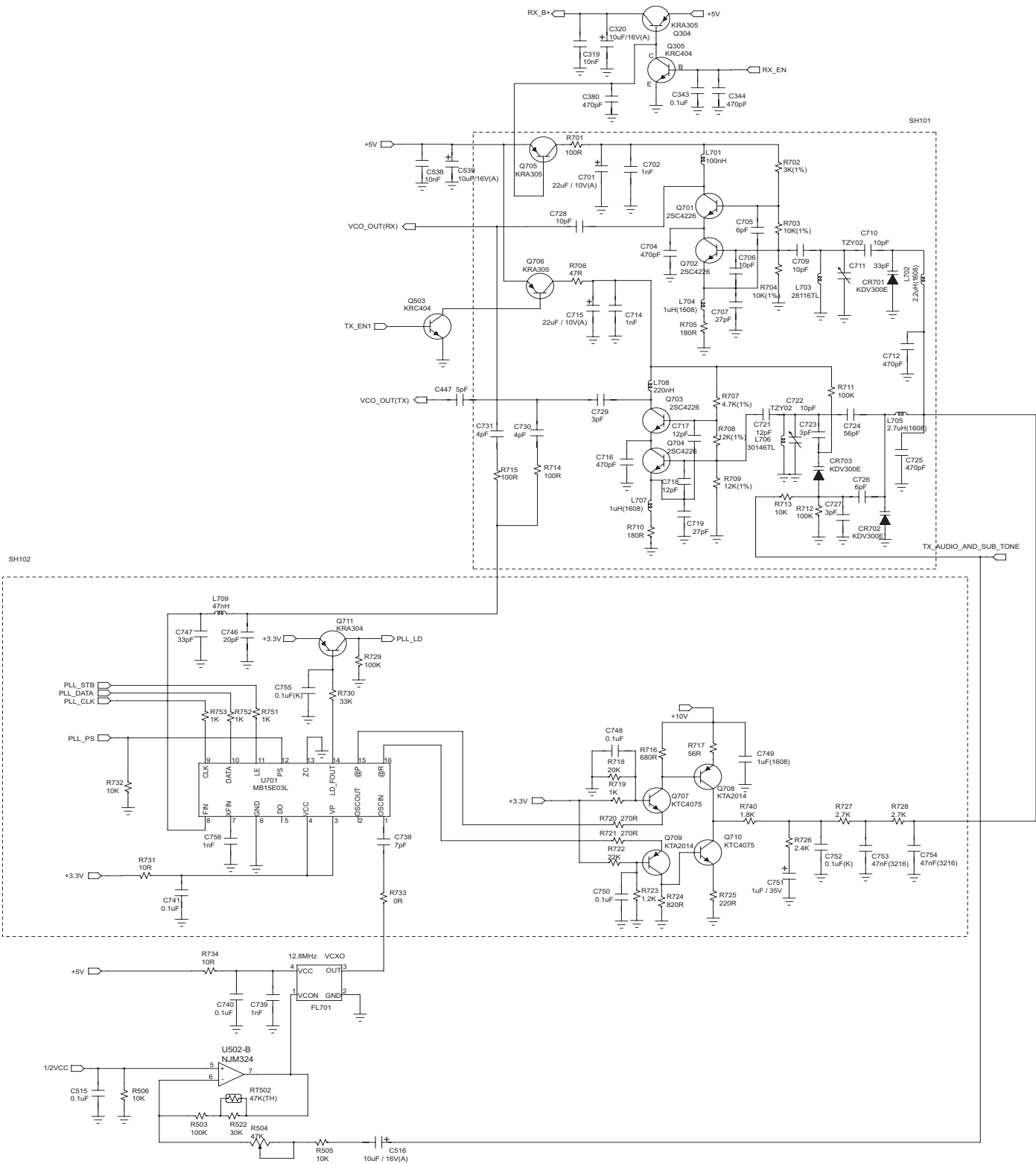


Figure 10-5. VCO and PLL Schematic Diagram

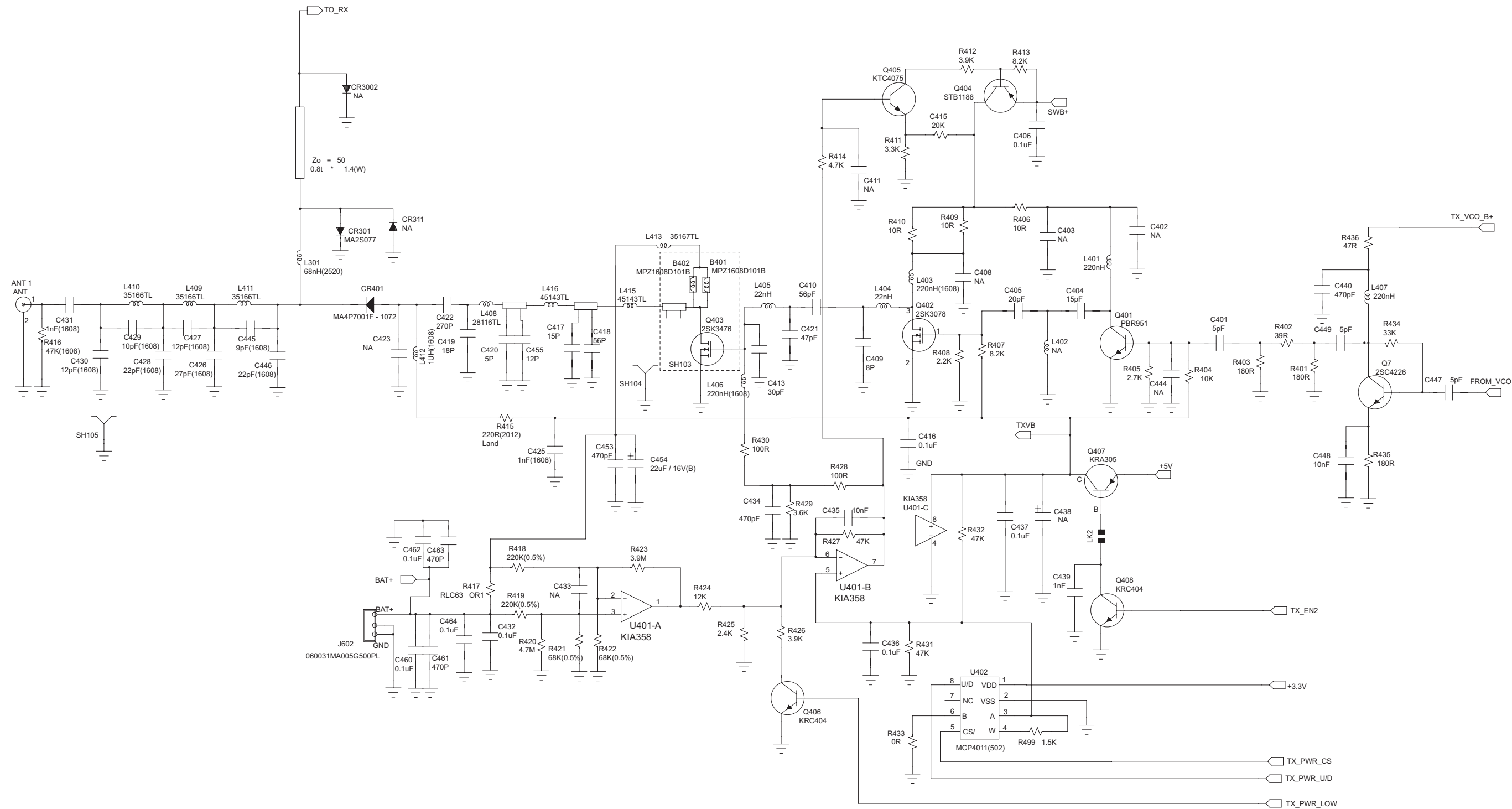


Figure 10-6. Transmitter Schematic Diagram

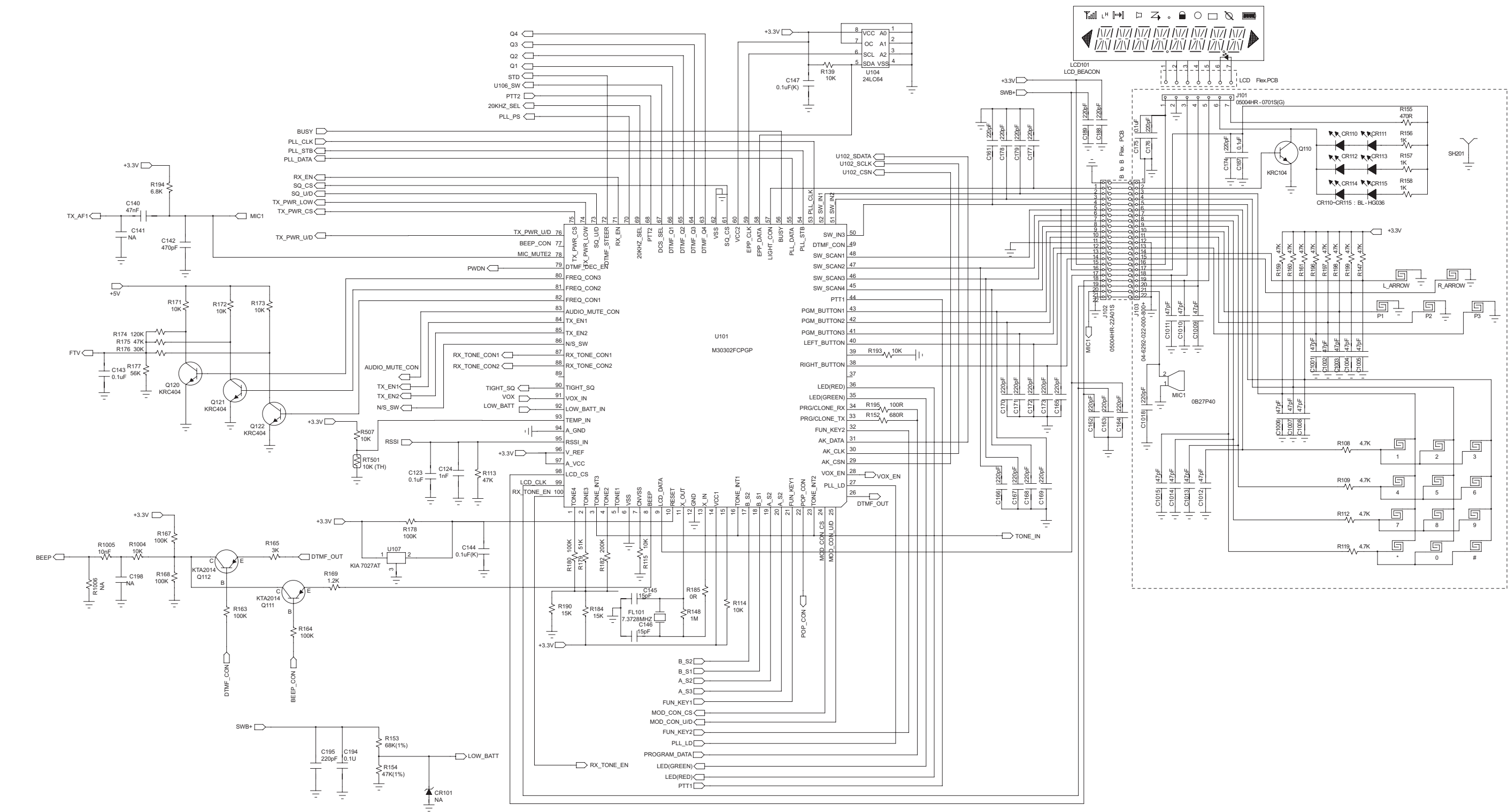


Figure 10-7. Microprocessor and Keypad Schematic Diagram

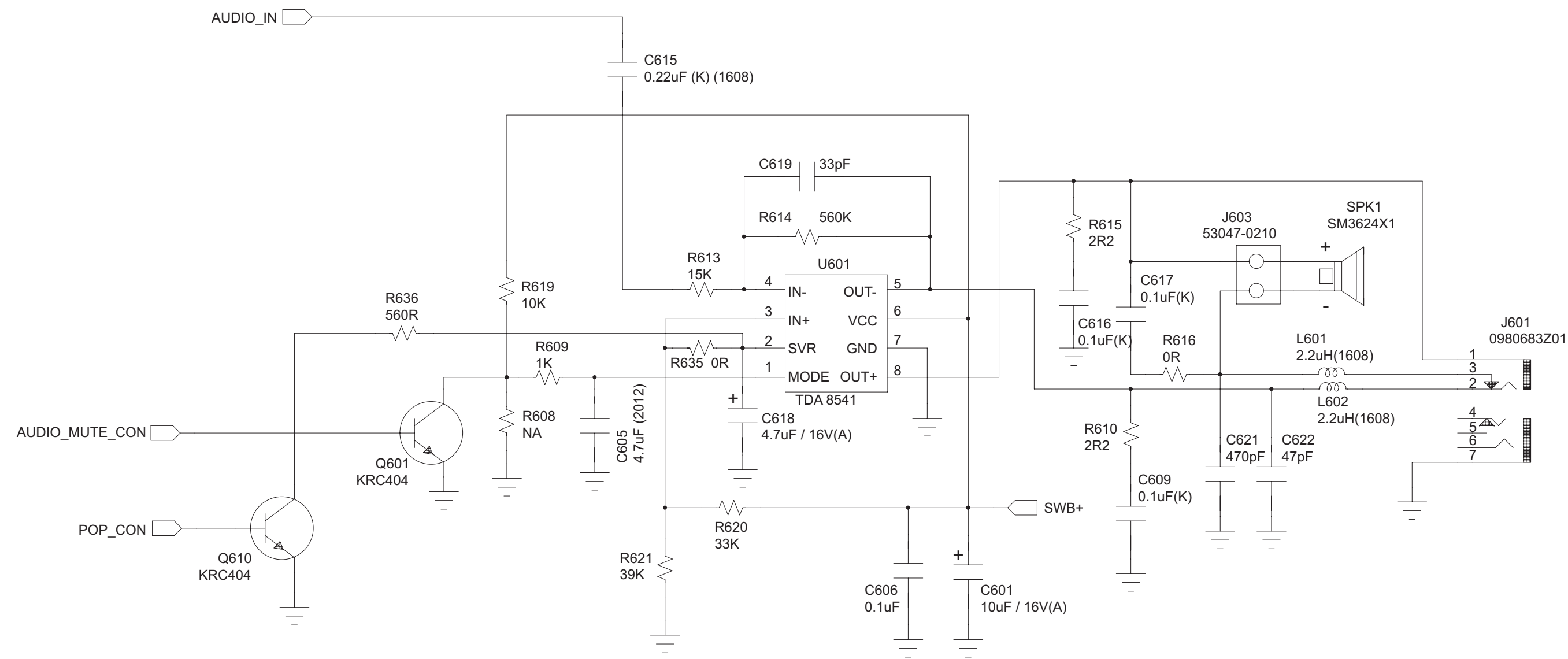


Figure 10-8. Audio Power Amplifier and External Audio Schematic Diagram

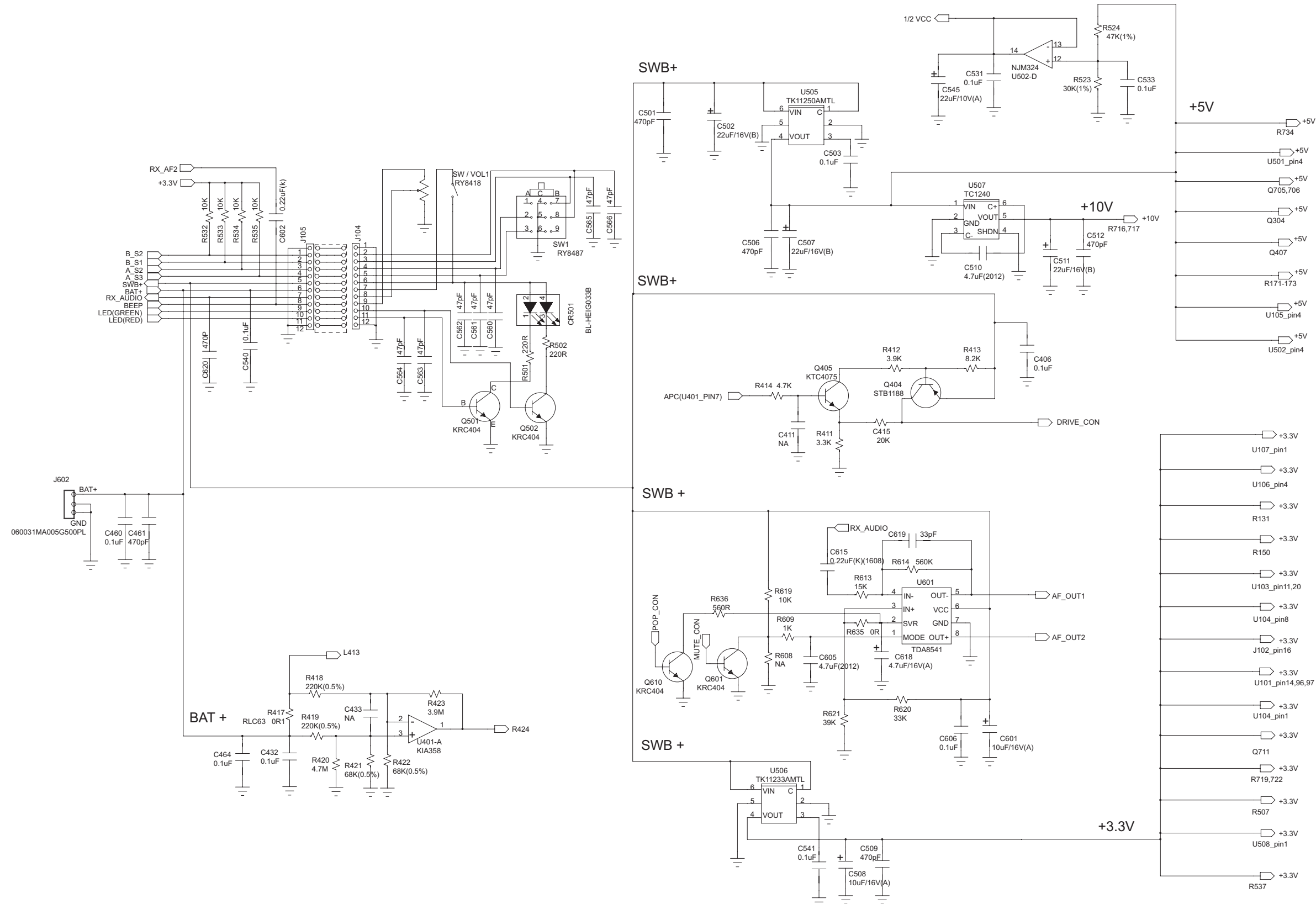


Figure 10-9. Switches and Battery Schematic Diagram

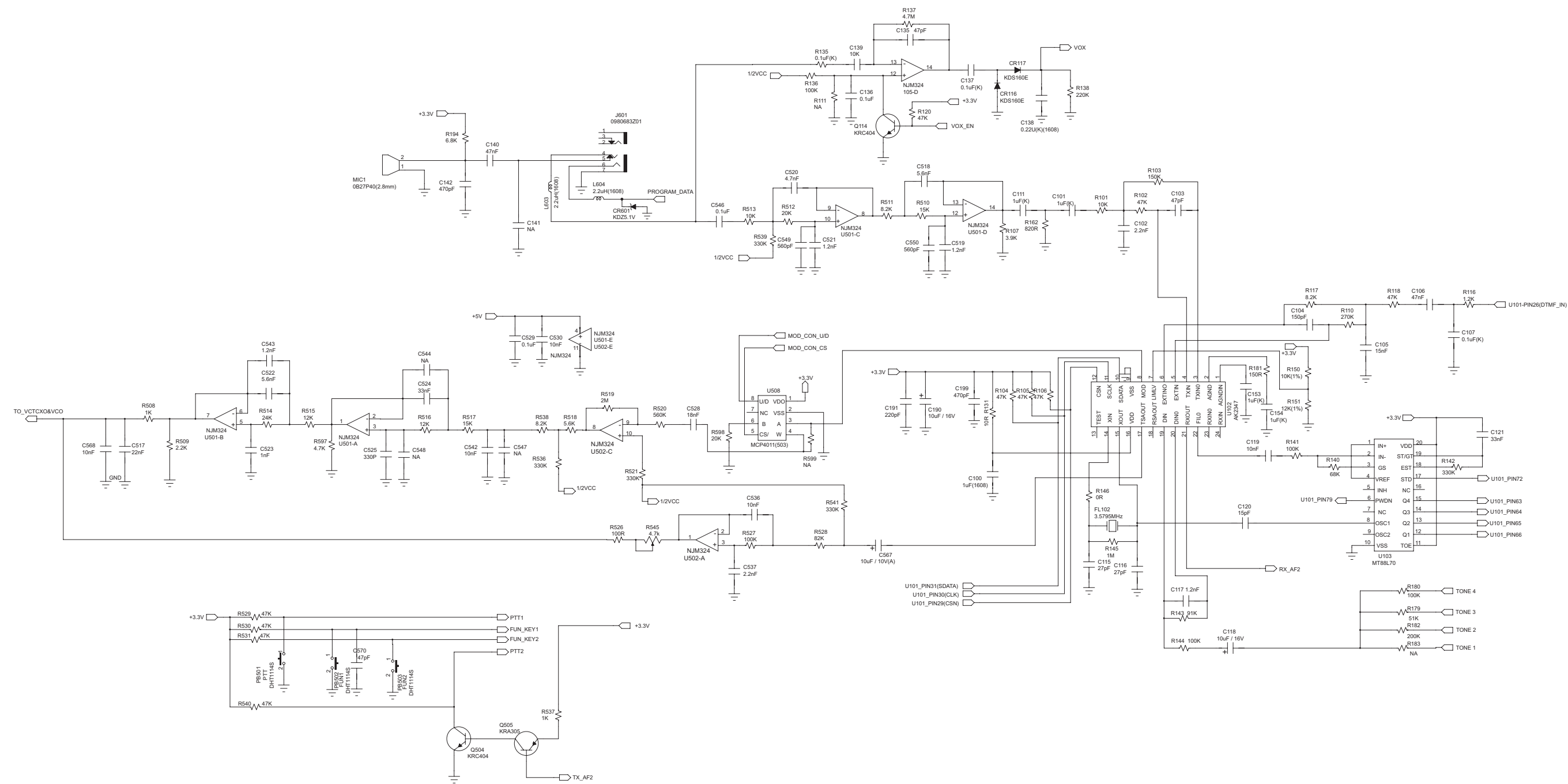


Figure 10-10. Transmitter Audio Filter and Sub-tone Schematic Diagram

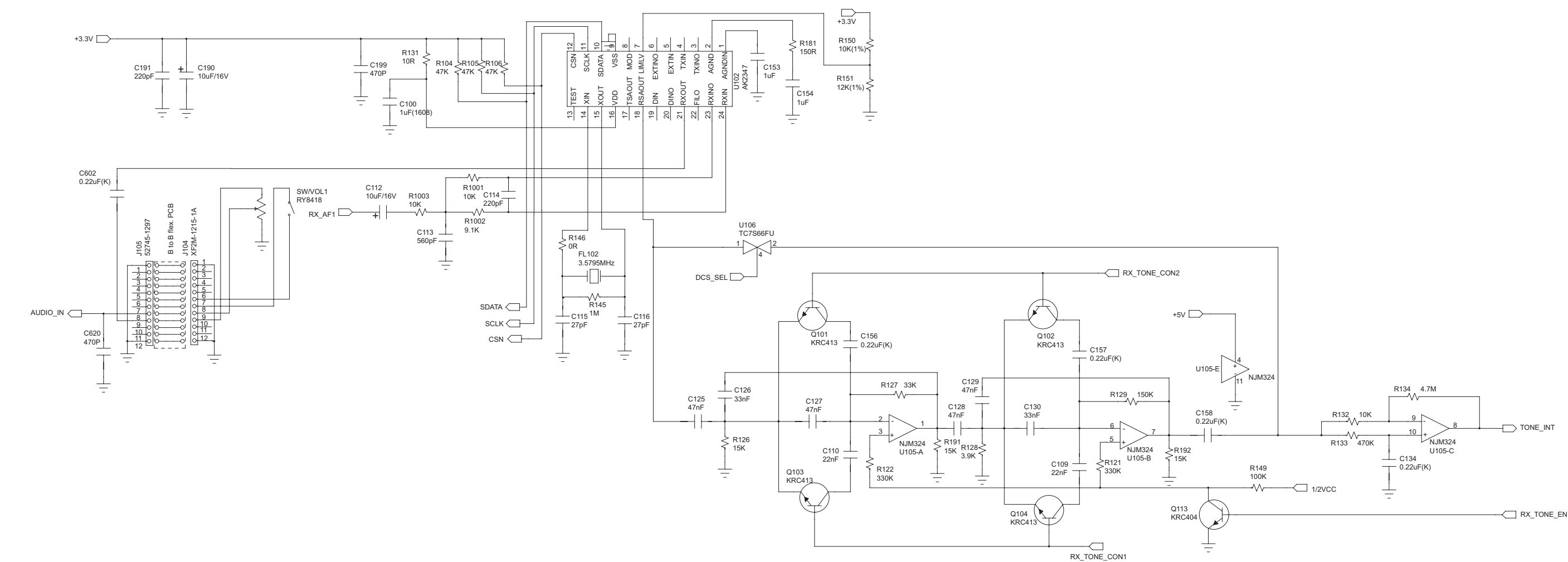


Figure 10-11. Receiver Audio Filter and Sub-tone Schematic Diagram

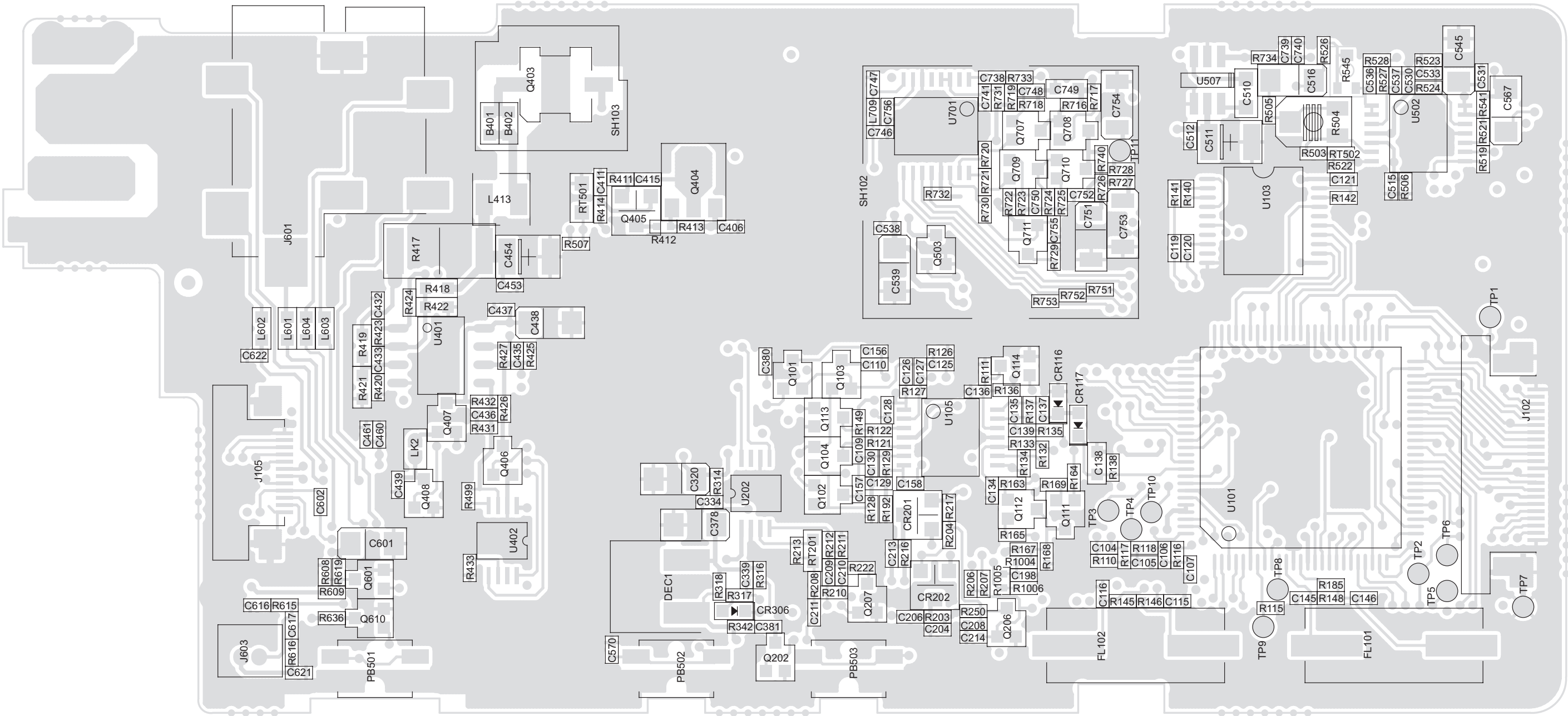


Figure 10-12. VHF (136–174 MHz) Mainboard Top Side: PCB No. E11-0762-0

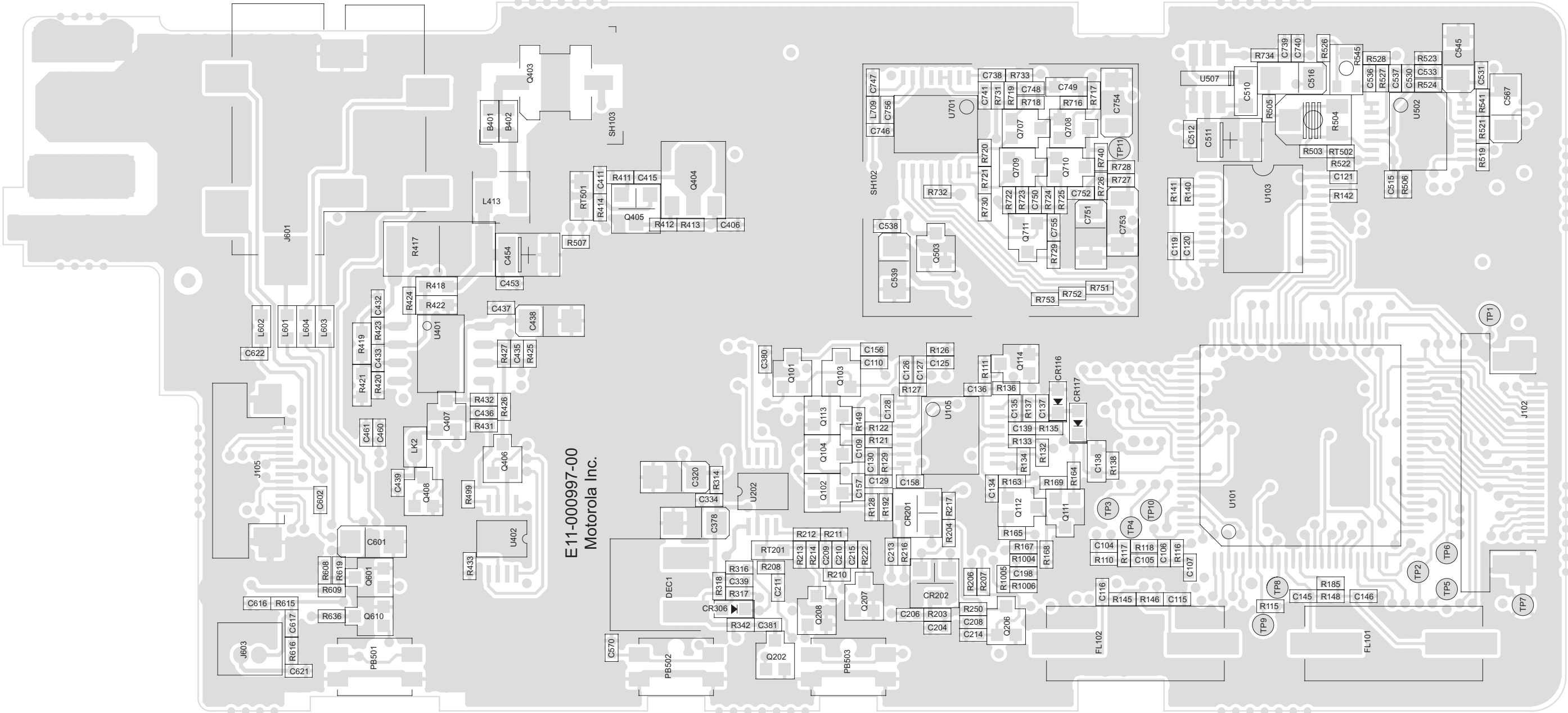


Figure 10-14. VHF (136–174 MHz) Mainboard Top Side: PCB No. E11-000997-00

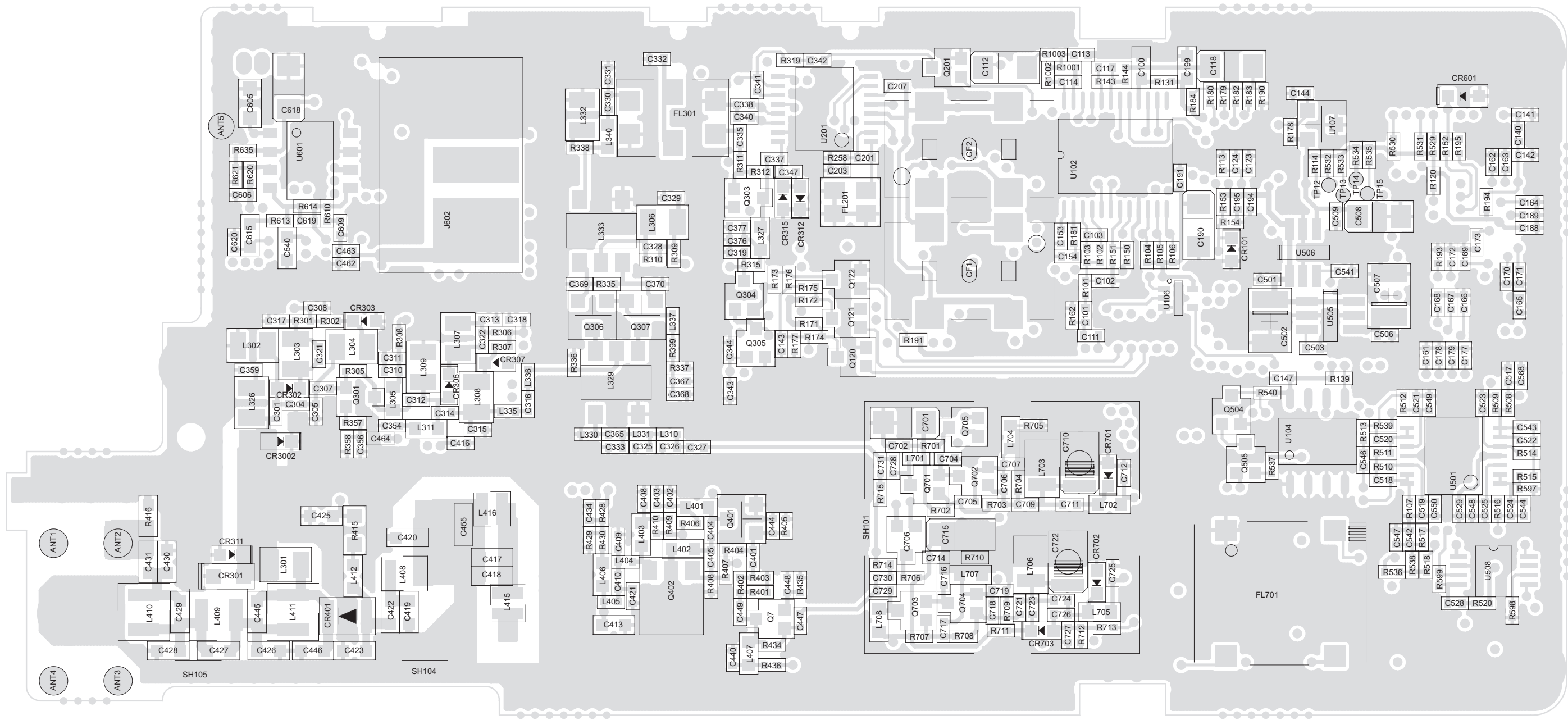


Figure 10-15. VHF (136–174 MHz) Mainboard Bottom Side: PCB No.E11-000997-00

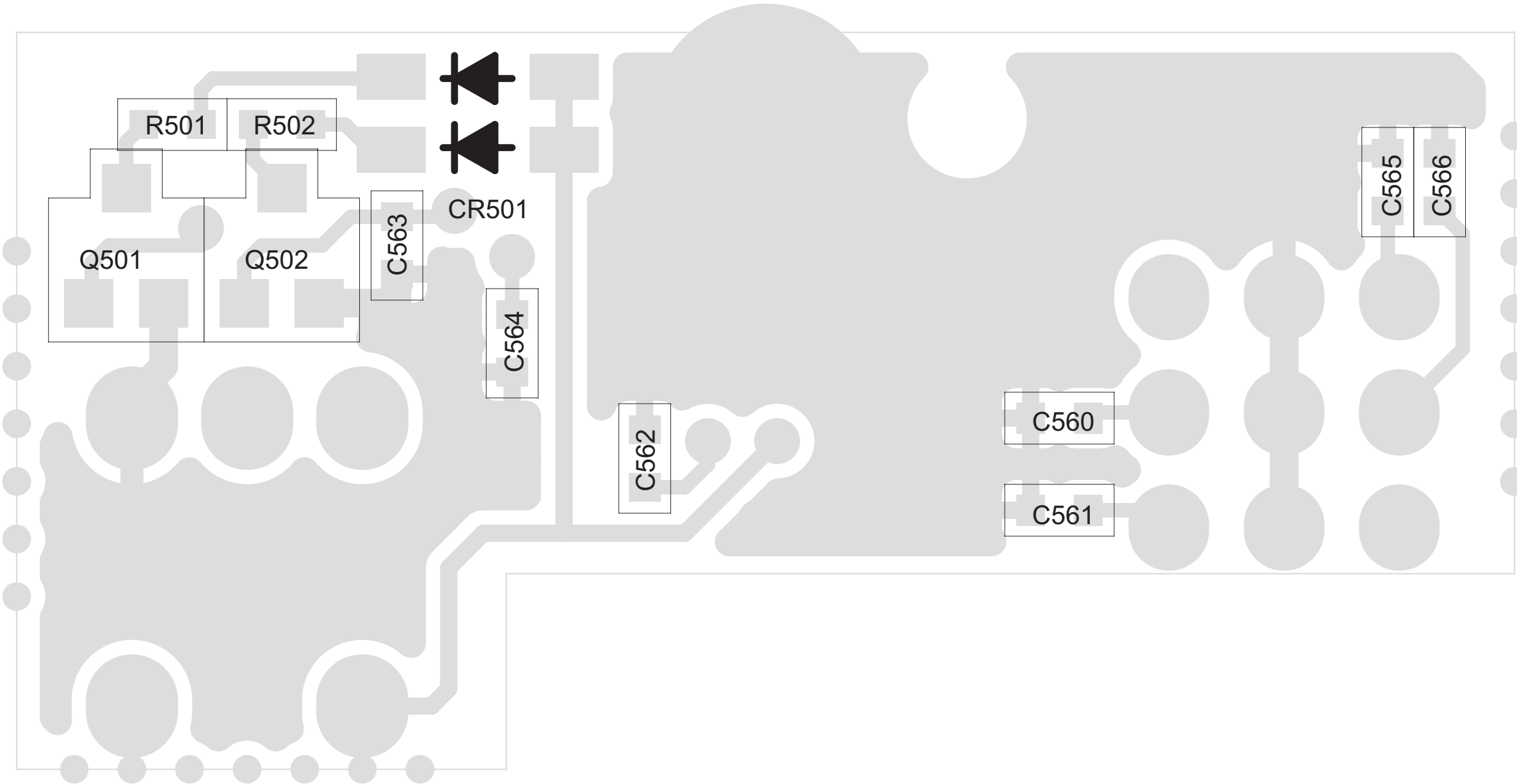


Figure 10-16. VHF (136–174 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

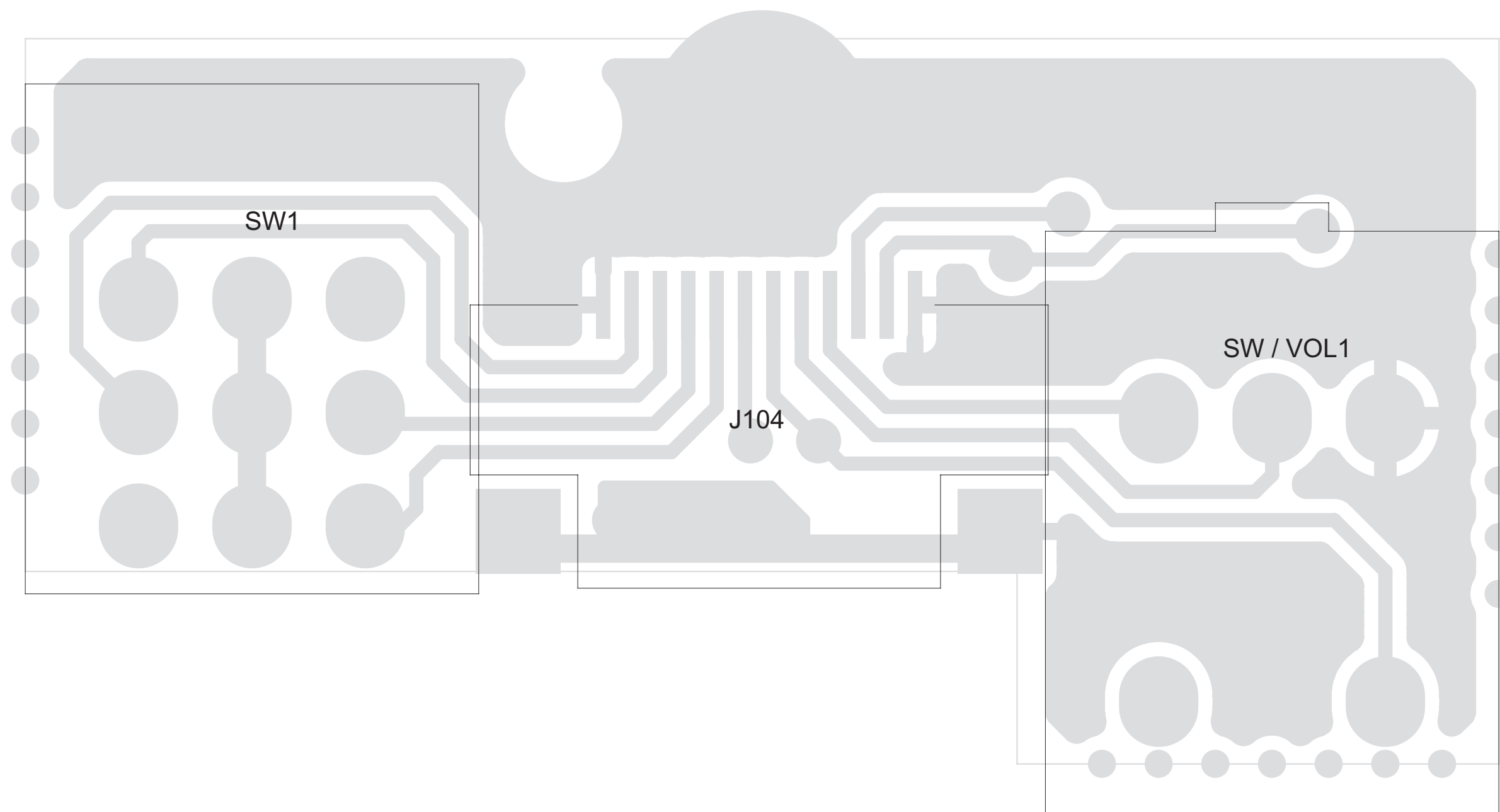


Figure 10-17. VHF (136–174 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

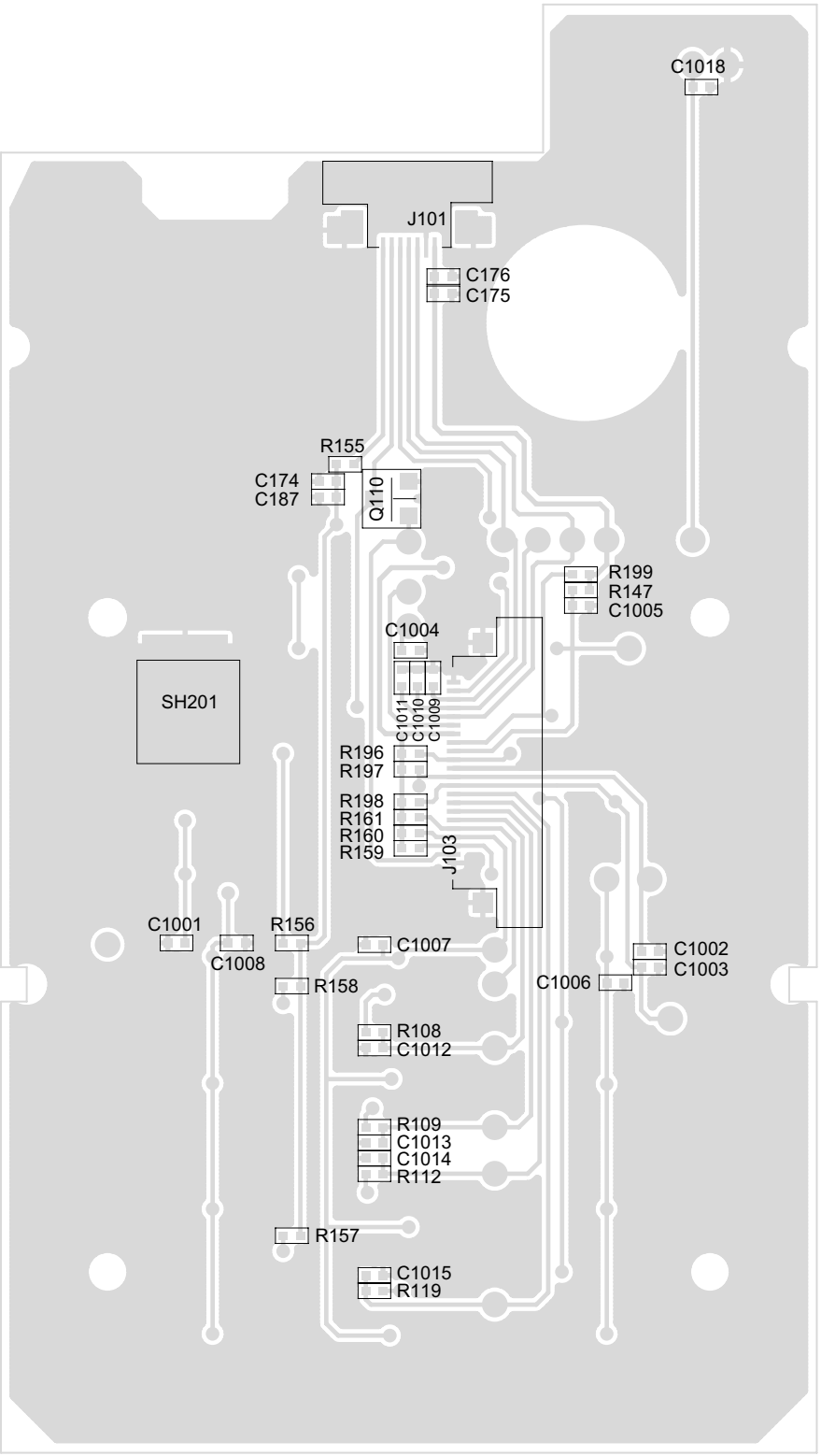
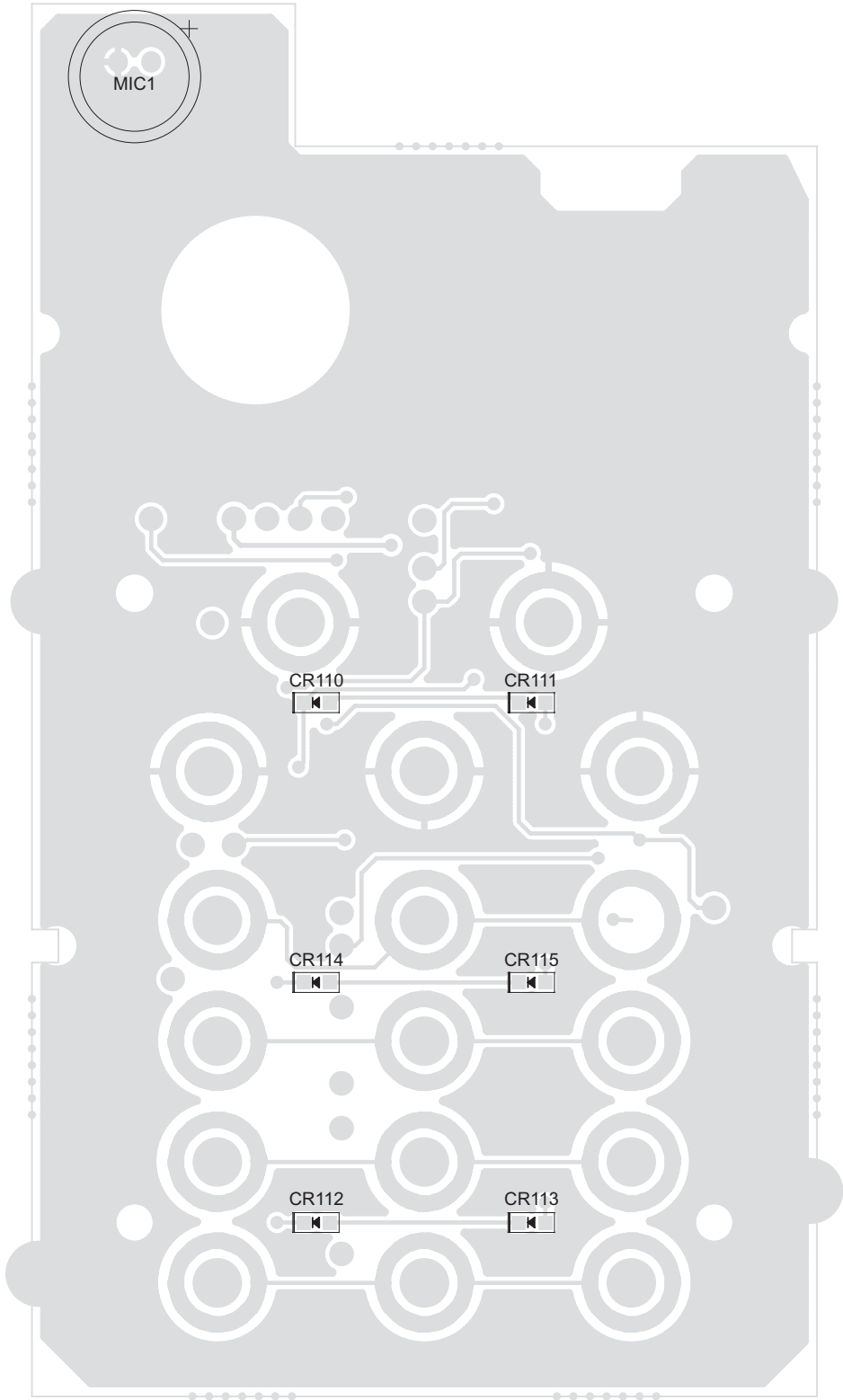


Figure 10-18. VHF (136–174 MHz) Keypad Board: PCB No. E11-000886-00

10.3.1 Parts List

Circuit Ref.	Supplier	Supplier Part No.	Description
B401	TDK	E03-0319-0	CHIP BEAD, CHIP FERRITE BEADS, 100 ohm,1608
B402	TDK	E03-0319-0	CHIP BEAD, CHIP FERRITE BEADS, 100 ohm,1608
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C123	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C161	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C165	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C166	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C167	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C168	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C170	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C171	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C177	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C178	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C179	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C190	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C199	TDK	E02-0244-0	Chip Cap, 1608 K 470PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0097-0	Chip Cap, 1005 J 120PF
C204	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C209	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C210	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C215 ²	TDK	E02-000947-00	Chip Cap. 1005 J 390PF
C301	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C304	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C305	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C307	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C308	TDK	E02-0049-0	Chip Cap, 1005 K 103PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C310	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C354	TDK	E02-0024-0	Chip Cap, 1005 D 9PF	C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C311	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C356	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C435	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C312	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C359	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C436	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C313	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C367	TDK	E02-0153-0	Chip Cap, 1005 J 220PF	C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C314	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C368	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C439	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C315	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C376	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C316	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C378	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C445	TDK	E02-0025-0	Chip Cap, 1608 D 9PF
C317	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C380	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C446	TDK	E02-0149-0	Chip Cap, 1608 J 22PF
C318	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C447	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C401	TDK	E02-0013-0	Chip Cap, 1005 C 5PF	C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C404	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C449	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C325	TDK	E02-0222-0	Chip Cap, 1005 J 39PF	C405	TDK	E02-0142-0	Chip Cap, 1005 J 20PF	C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C326	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C406	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C454	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C327	TAIYOYUDEN	E03-0074-0	Chip Ind, 1005 J 10N	C409	TDK	E02-0021-0	Chip Cap, 1005 D 8PF	C455	TDK	E02-0094-0	Chip Cap, 1608 J 12PF
C328	TDK	E02-0016-0	Chip Cap, 1005 D 6PF	C410	TDK	E02-0273-0	Chip Cap, 1005 J 56PF	C460	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C329	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C413	TDK	E02-0198-0	Chip Cap, 1608 J 30PF	C461	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C330	TDK	E02-0019-0	Chip Cap, 1005 D 7PF	C416	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C462	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C331	TDK	E02-0013-0	Chip Cap, 1005 C 5PF	C417	TDK	E02-0109-0	Chip Cap, 1608 J 15PF	C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C332	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C418	TDK	E02-0274-0	Chip Cap, 1608 J 56PF	C464	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C333	TDK	E02-0180-0	Chip Cap, 1005 J 27PF	C419	TDK	E02-0127-0	Chip Cap, 1608 J 18PF	C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C420	TDK	E02-0015-0	Chip Cap, 1608 C 5PF	C502	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C335	TDK	E02-0142-0	Chip Cap, 1005 J 20PF	C421	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C422	TDK	E02-0187-0	Chip Cap, 1608 J 270PF	C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF	C425	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	C507	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C425	TDK	E02-0043-0	Chip Cap, 1608 K 1000PF	C508	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C426	TDK	E02-0182-0	Chip Cap, 1608 J 27PF	C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C341 C341 ²	TDK TDK	E02-0233-0 E02-000303-00	Chip Cap, 1005 J 47PF Chip Cap, 1005 J 82PF	C427	TDK	E02-0094-0	Chip Cap, 1608 J 12PF	C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C428	TDK	E02-0149-0	Chip Cap, 1608 J 22PF	C511	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C343	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C429	TDK	E02-0031-0	Chip Cap, 1608 D 10PF	C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C430	TDK	E02-0094-0	Chip Cap, 1608 J 12PF	C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C347	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C431	TDK	E02-0042-0	Chip Cap, 1608 J 1000PF	C516	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
				C432	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C517	TDK	E02-0162-0	Chip Cap, 1005 K 223PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF	C567	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C721	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF	C568	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C722	MURATA	E02-0427-0	Chip Trimmer Cap, 2PIE 10PF
C520	TDK	E02-0247-0	Chip Cap, 1005 K 472PF	C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C723	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF	C601	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C724	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C522	TDK	E02-0279-0	Chip Cap, 1005 K 562PF	C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C523	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF	C726	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C524	TDK	E02-0216-0	Chip Cap, 1005 K 333PF	C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C525	TDK	E02-0211-0	Chip Cap, 1005 K 330PF	C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C728	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF	C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF	C729	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C730	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C731	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C618	HITACHI	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)	C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C739	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C536	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C620	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C621	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C746	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C539	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C701	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C747	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF	C702	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C704	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C705	TDK	E02-0016-0	Chip Cap, 1005 D 6PF	C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C543	TDK	E02-0100-0	Chip Cap, 1005 K 122PF	C706	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C751	HITACHI	E02-0339-0	Chip Tantal, 1uF-M/35V(A)
C545	AVX	E02-0383-0	Chip Cap, 22uF-M/10V(A)	C707	TDK	E02-0180-0	Chip Cap, 1005 J 27PF	C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C709	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C753	PANASONIC	E02-0322-0	Film Chip Cap,3216 J 473PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C710	MURATA	E02-0427-0	Chip Trimmer Cap, 2PIE 10PF	C754	PANASONIC	E02-0322-0	Film Chip Cap,3216 J 473PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C711	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C560	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C756	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C561	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C714	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C1001	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C562	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C715	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C1002	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C563	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C1003	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C717	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C1004	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C718	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C1005	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C566	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C719	TDK	E02-0180-0	Chip Cap, 1005 J 27PF	C1006	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1007	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1015	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1018	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
CE302	KEC	E06-0071-0	VARICAP DIODE, KDV269E
CF1	BGTech	E17-0003-0	CERAMIC FILTER, ELFY455F
CF1 ²	BGTech	E17-000057-00	CQ, Ceramic Filter, LTWC455F
CF2	BGTech	E17-0004-0	CERAMIC FILTER, ELFY455H
CF2 ²	BGTech	E17-000058-00	CQ, Ceramic Filter, LTWC455H
CR110	BRIGHTLED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR111	BRIGHTLED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR112 ¹	BRIGHTLED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR113 ¹	BRIGHTLED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR114 ¹	BRIGHTLED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR115 ¹	BRIGHTLED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR116	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR117	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR201	KEC	E06-0005-0	DIODE, KDS 181
CR202	KEC	E06-0005-0	DIODE, KDS 181
CR301	PANASONIC	E06-0022-0	PIN DIODE SMD TYPE, MA2S07700L
CR303	KEC	E06-0071-0	VARICAP DIODE, KDV269E
CR305	KEC	E06-0071-0	VARICAP DIODE, KDV269E
CR306	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR307	KEC	E06-0071-0	VARICAP DIODE, KDV269E

Circuit Ref.	Supplier	Supplier Part No.	Description
CR312	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR315	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR401	M/A-COM Inc.	E06-0025-0	PIN DIODE (M/A COM), MA4P7001F-1072T
CR501	BRIGHTLED	E07-0041-0	CHIP LED, BL-HEIG033B-TR
CR601	KEC	E06-0031-0	ZENER DIODE, KDZ 5.1V
CR701	KEC	E06-0072-0	VARICAP DIODE, KDV300E
CR702	KEC	E06-0072-0	VARICAP DIODE, KDV300E
CR703	KEC	E06-0072-0	VARICAP DIODE, KDV300E
DEC1	BGTech	E17-0037-0	DISCRIMINATOR, JTBC455C24
FL101	BGTech	E08-0135-0	Crystal, 7.3728MHz (H:2.8mm) : Rev02
FL102	BGTech	E08-0036-0	Crystal, 3.5795MHz (H:2.8mm)
FL201	BGTech	E08-0043-0	Crystal, 44.645MHz (SMD)
FL301	BGTech	E17-0026-0	Crystal Filter, MCF 45.15S12.B (8.5KHz)
FL701	BGTech	E08-0055-0	VCTCXO, 12.8 MHZ
J101	BGTech	E10-0167-0	FPC CONNECTOR, 05004HR-07C01S(G)
J102	BGTech	E10-0173-0	FPC CONNECTOR, 05004HR-22A01S
J103	BGTech	E10-0171-0	FPC CONNECTOR, 04-6292-022-000-800+
J104	BGTech	E10-0169-0	FPC CONNECTOR, XF2M-1215-1A
J105	BGTech	E10-0349-0	FPC CONNECTOR, 52745-1297
J601	BGTech	E10-0014-0	SPK MIC JACK, 0980683Z01-D
J602	BGTech	E10-0081-0	BATTERY CONNECTOR, 060031MA005G500PL
J603	BGTech	E10-0099-0	CONNECTOR, 53047-0210
L301	TAIYOYUDEN	E03-0157-0	Chip Ind, 2520 K 68N
L302	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)

Circuit Ref.	Supplier	Supplier Part No.	Description
L303	DELTA	9270012011820	Chip Ind, 2012 12NH G (Tolerance 2%)
L304	DELTA	9270068011820	Chip Ind, 2012 68NH G (Tolerance 2%)
L305	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L306	DELTA	9270820N11820	Chip Ind, 2012 820NH G (Tolerance 2%)
L307	DELTA	9270012011820	Chip Ind, 2012 12NH G (Tolerance 2%)
L308	DELTA	9270068011820	Chip Ind, 2012 68NH G (Tolerance 2%)
L309	DELTA	9270022011820	Chip Ind, 2012 22NH G (Tolerance 2%)
L310	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N
L311	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L326	DELTA	9270022111820	Chip Ind, 2012 220NH G (Tolerance 2%)
L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
L329	BGTech	E03-0185-0	Balun Trans,#617PT-1667
L330	TAIYOYUDEN	E03-0160-1	Chip Ind, 1005 J 82N
L331	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N
L332	DELTA	9270820N11820	Chip Ind, 2012 820NH G (Tolerance 2%)
L333	BGTech	E03-0184-0	Balun Trans,#617PT-1664
L335	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L336	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L337	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L340	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
L365	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N
L401	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L403	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L404	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L405	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L407	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
L408	DAELIM	E03-0034-0	Coil Air, 0.28-1.1-6TL	Q104	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor	Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
L409	DAELIM	E03-0053-0	Coil Air, 0.35-1.6-6TL	Q110	KEC	E05-0015-0	KRC 101S KEC BJT NPN Transistor	Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
L410	DAELIM	E03-0053-0	Coil Air, 0.35-1.6-6TL	Q111	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor	Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor
L411	DAELIM	E03-0053-0	Coil Air, 0.35-1.6-6TL	Q112	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor	Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
L412	TAIYOUDEN	E03-0097-0	Chip Ind, 1608 K 1uH	Q113	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q405	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
L413	DAELIM	E03-0051-0	Coil Air, 0.35-1.6-7TL	Q114	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q406	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L415	DAELIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q120	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q407	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
L416	DAELIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q121	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q408	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L601	TAIYOUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q122	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q501	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L602	TAIYOUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q201	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q502	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L603	TAIYOUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q202	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q503	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L604	TAIYOUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q206	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q504	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L701	TAIYOUDEN	E03-0165-1	Chip Ind, 1005 J 100nH	Q207	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q505	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
L702	TAIYOUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q208 ²	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor	Q601	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L703	DAELIM	E03-0034-0	Coil Air, 0.28-1.1-6TL	Q301	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	Q610	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
L704	TAIYOUDEN	E03-0097-0	Chip Ind, 1608 K 1uH	Q303	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor	Q701	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
L705	TAIYOUDEN	E03-0296-0	Chip Ind, 1608 K 2.7uH	Q304	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor	Q702	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
L706	DAELIM	E03-0010-0	Coil Air, 0.3-1.4-6TL	Q305	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor	Q703	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
L707	TAIYOUDEN	E03-0097-0	Chip Ind, 1608 K 1uH	Q306	BGTech	E05-0084-0	2SK711 TOSHIBA FET N-Channel Transistor	Q704	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
L708	TAIYOUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q307	BGTech	E05-0084-0	2SK711 TOSHIBA FET N-Channel Transistor	Q705	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
L709	TAIYOUDEN	E03-0132-1	Chip Ind, 1005 J 47N								
MIC1	BGTech	E19-0009-0	C-MIC, 6.0*2.7/2.2KΩ,2V,-44±3dB, Pin type								
PB501	BGTech	E09-0030-0	Tack Switch, EVQPUD02K								
PB502	BGTech	E09-0030-0	Tack Switch, EVQPUD02K								
PB503	BGTech	E09-0030-0	Tack Switch, EVQPUD02K								
Q7	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor								
Q101	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor								
Q102	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor								
Q103	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor								

Circuit Ref.	Supplier	Supplier Part No.	Description
Q706	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q707	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q708	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q709	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q710	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q711	KEC	E05-0027-0	KRA 304 KEC BJT PNP Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R132	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R133	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R134	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R143	KAMAYA	E01-0401-0	Chip Res, 1005 J 91KΩ
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R147	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R149	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
R153	KAMAYA	E01-0356-0	Chip Res, 1608 F 68KΩ
R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R155	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R156	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R160	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R165	KAMAYA	E01-0217-0	Chip Res, 1005 F 3KΩ
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R174	KAMAYA	E01-0089-1	Chip Res, 1005 J 120KΩ
R175	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R176	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ
R177	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R191	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R192	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0352-0	Chip Res, 1005 J 6.8KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R199	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ	R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R204 R204 ²	KAMAYA KAMAYA	E01-0178-0 E01-000218-00	Chip Res, 1005 J 22KΩ Chip Res. 1005 J 3KΩ	R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R206 R206 ²	KAMAYA KAMAYA	E01-0056-1 E01-000218-00	Chip Res, 1005 J 10KΩ Chip Res. 1005 J 3KΩ	R317 R317 ²	KAMAYA KAMAYA	E01-0089-1 E01-000143-00	Chip Res, 1005 J 120KΩ Chip Res. 1005 J 180KΩ	R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R207 R207 ²	KAMAYA KAMAYA	E01-0178-0 E01-000323-00	Chip Res, 1005 J 22KΩ Chip Res. 1005 J 5.6KΩ	R318 R318 ²	KAMAYA KAMAYA	E01-0172-1 E01-000152-00	Chip Res, 1005 J 2.2KΩ Chip Res. 1005 J 2KΩ	R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R208 R208 ²	KAMAYA KAMAYA	E01-0152-0 E01-000107-00	Chip Res, 1005 J 2KΩ Chip Res. 1005 J 1.5KΩ	R319 R319 ²	KAMAYA KAMAYA	E01-0263-1 E01-000201-00	Chip Res, 1005 J 3.9KΩ Chip Res. 1005 J 2.7KΩ	R423	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ
R210	KAMAYA	E01-0089-1	Chip Res, 1005 J 120KΩ	R336	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R211	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R337	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R425	KAMAYA	E01-0192-0	Chip Res, 1005 J 2.4KΩ
R212	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R338	TDK	E02-0003-0	Chip Cap, 1005 C 1PF	R426	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R213 R213 ²	KAMAYA KAMAYA	E01-0157-0 E01-000289-01	Chip Res, 1005 J 20KΩ Chip Res. 1005 J 4.7KΩ	R342	KAMAYA	E01-0352-0	Chip Res, 1005 J 6.8KΩ	R427	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R214 ²	KAMAYA	E01-000369-00	Chip Res. 1005 J 7.5KΩ	R357	KAMAYA	E01-0146-0	Chip Res, 1005 J 1Ω	R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R216	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R358	KAMAYA	E01-0146-0	Chip Res, 1005 J 1Ω	R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R217 R217 ²	KAMAYA KAMAYA	E01-0056-1 E01-000218-00	Chip Res, 1005 J 10KΩ Chip Res. 1005 J 3KΩ	R399	KAMAYA	E01-0345-0	Chip Res, 1005 J 68Ω	R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R222 R222 ²	KAMAYA KAMAYA	E01-0081-0 E01-000317-00	Chip Res, 1005 J 1.2KΩ Chip Res. 1005 J 560Ω	R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R431	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω	R432	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R258 R258 ²	KAMAYA KAMAYA	E01-0107-0 E01-000056-01	Chip Res, 1005 J 1.5KΩ Chip Res. 1005 J 10KΩ	R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R301	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R404	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R302	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R405	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ	R435	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R305	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ	R406	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R436	KAMAYA	E01-0280-0	Chip Res, 1005 J 47Ω
R306	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R407	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R499	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R307	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ	R501	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R308	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω	R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R502	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R309	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R503	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R310	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R411	KAMAYA	E01-0238-0	Chip Res, 1005 J 3.3KΩ	R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 KΩ
R311	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω	R412	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ	R505	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R312	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ	R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
				R414	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R507	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
				R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220Ω	R508	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
				R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ	R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
				R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω	R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
								R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
								R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R723	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R514	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ	R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R724	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω
R515	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ	R614	KAMAYA	E01-0330-0	Chip Res, 1005 J 560KΩ	R725	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R516	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ	R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R726	KAMAYA	E01-0192-0	Chip Res, 1005 J 2.4KΩ
R517	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R518	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KΩ	R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R519	KAMAYA	E01-1034-0	Chip Res, 1005 J 2MΩ	R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R520	KAMAYA	E01-0330-0	Chip Res, 1005 J 560KΩ	R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ	R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R635	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R522	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ	R636	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω	R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ	R701	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ	R702	KAMAYA	E01-0217-0	Chip Res, 1005 F 3KΩ	R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R526	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R703	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ	R740	KAMAYA	E01-0136-0	Chip Res, 1005 J 1.8KΩ
R527	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R704	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ	R751	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ	R705	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R752	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R706	KAMAYA	E01-0280-0	Chip Res, 1005 J 47Ω	R753	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R707	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ	R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R708	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ	R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R709	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ	R1003	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R710	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	RT201	TAIYOYUDEN	E01-0478-0	Thermistor, 103K
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R713	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	RT201 ²	TAIYOYUDEN	E01-001138-00	Thermistor. 1608 K 1K
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R714	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	RT501	TAIYOYUDEN	E01-0478-0	Thermistor, 103K
R538	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R715	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	RT502	TAIYOYUDEN	E01-0486-0	Thermistor, 47K (1005)
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R716	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω	SH101	BGTech	M06-0163-0	SHIELD CAN - VCO, SPCC (0.3t), 18.8x20.4(Inner), H=3,Drawing type
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R717	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω	SH102	BGTech	M06-0173-0	SHIELD CAN TCXO, C5210P(0.3t), 18.4x21(Inner), H=2.5
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R718	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	SH103	BGTech	M06-0268-0	PA SHIELD CAN, C5210P(0.3t), 9X11.6(outer), H=2.1
R545	NOBLE	E01-0466-0	Chip Semi V.R, 2PIE 4.7 KΩ	R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	SH104	Motorola	PMDN4150AR	Finger Strip, T PCB
R597	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ	R720	KAMAYA	E01-0199-0	Chip Res, 1005 J 270Ω				
R598	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R721	KAMAYA	E01-0199-0	Chip Res, 1005 J 270Ω				
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R722	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ				

Circuit Ref.	Supplier	Supplier Part No.	Description
SH105	Motorola	PMDN4149AR	Finger Strip, TX
SH201	Motorola	PMDN4151AR	Finger Strip - Pair
SW/ VOL1	BGTech	E01-1032-0	Switch Volume, RY-8418
U101	BGTech	E04-0046-0	PU IC, M3030RFCPGP
U102	BGTech	E04-0114-0	AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	DTMF RECEIVER, MT88L70 ANR1
U104	BGTech	E04-0097-0	EEPROM IC, 24LC64
U105	JRC	E04-0185-0	OP AMP, NJM324 V
U106	BGTech	E04-0211-0	Analog SW IC, TC7S66FU
U107	KEC	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201	BGTech	E04-0195-0	FM IC, TA31136
U202	BGTech	E04-0263-0	DIGITAL POTENTIOMETER, MCP4011(503)
U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358 F
U402	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	OP AMP, NJM324 V
U502	JRC	E04-0185-0	OP AMP, NJM324 V
U505	BGTech	E04-0150-0	REGULATOR IC, TK11250CMCL-G
U506	BGTech	E04-0148-0	REGULATOR IC, TK11233CMCL-G
U507	BGTech	E04-0207-0	VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	PLL IC, MB15E03SLPFV1-G-BND-EF-6
PCB1	BGTech	E11-0762-0	Main PCB, FR4 4 Layer PCB Rev.#MP02
PCB1 ²	BGTech	E11-000997-00	Main PCB, FR4 4 Layer PCB Rev.#MP03
SUB PCB1	BGTech	E11-000002-02	Sub PCB, 1.2T 2Layer

Circuit Ref.	Supplier	Supplier Part No.	Description
KEY PCB	BGTech	E11-000886-00	Key PCB, 1.2T 2Layer

- Note:
- 1. Not for PMUD2441AAE and PMUD2446AAE
 - 2. Only for PCB No. *E11-000997-00*

Notes

10.4 Circuit Board/Schematic Diagram and Parts List (VHF: 136–174 MHz)

10.4.1 MDC1200 and QCII Models

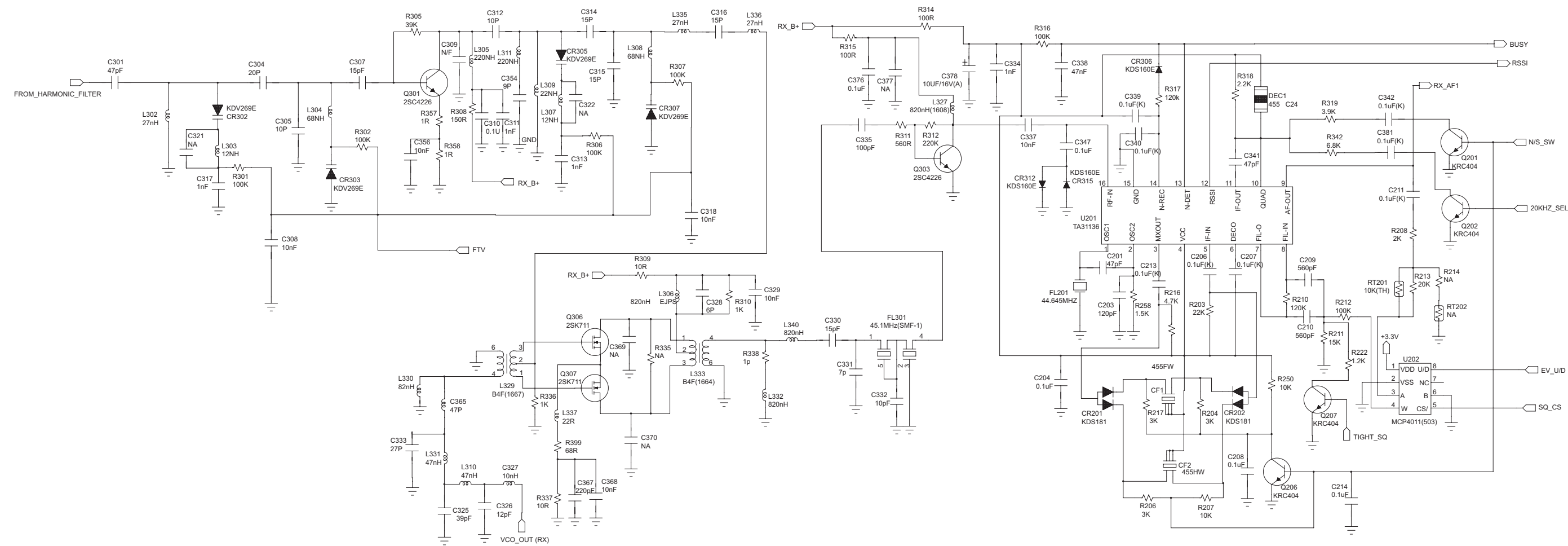


Figure 10-19. VHF (136–174 MHz, MDC1200 and QCII) Receiver Schematic Diagram (Part No:E11-000948-00)

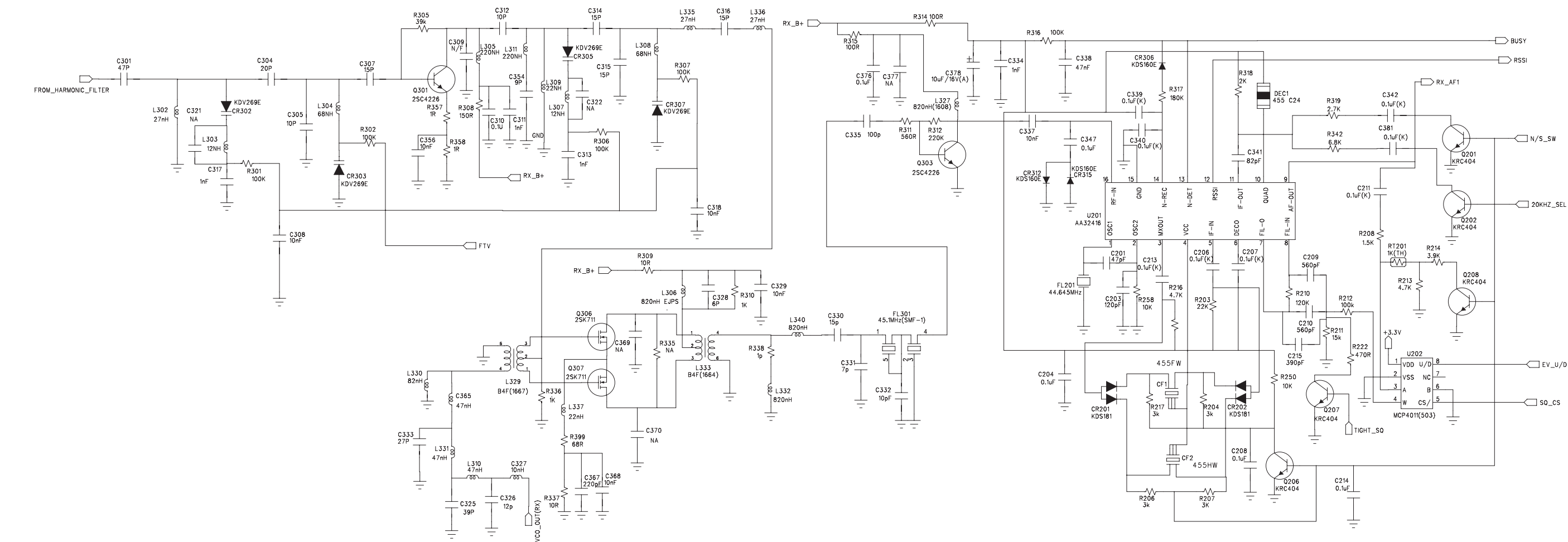


Figure 10-20. VHF (136–174 MHz, MDC1200 and QCII) Receiver Schematic Diagram (Part No: E11-001007-00)

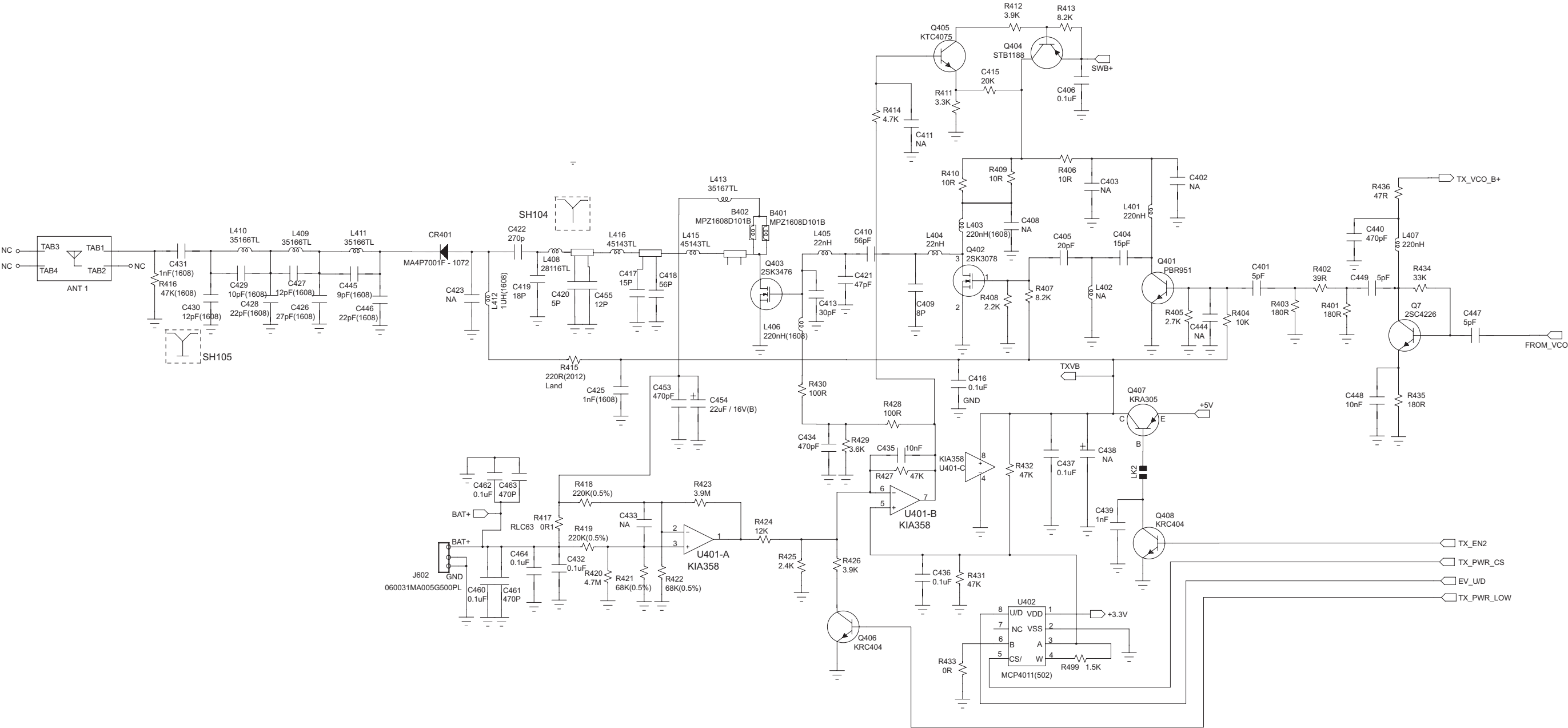
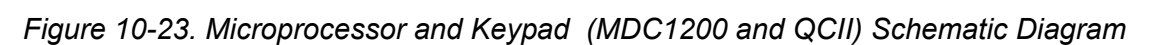


Figure 10-22. Transmitter (MDC1200 and QCII) Schematic Diagram



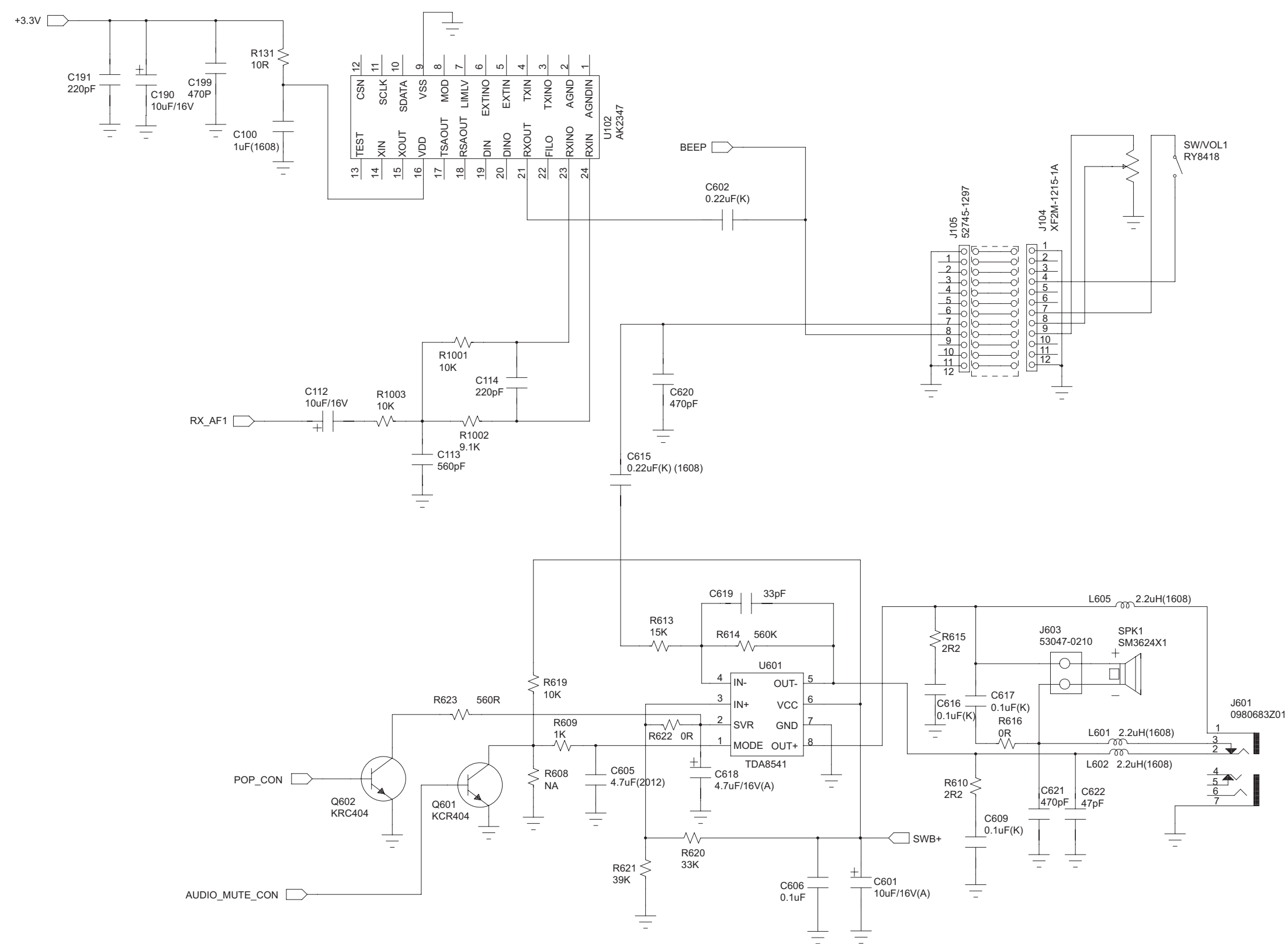


Figure 10-24. Audio Power Amplifier and External Audio (MDC1200 and QCII) Schematic Diagram

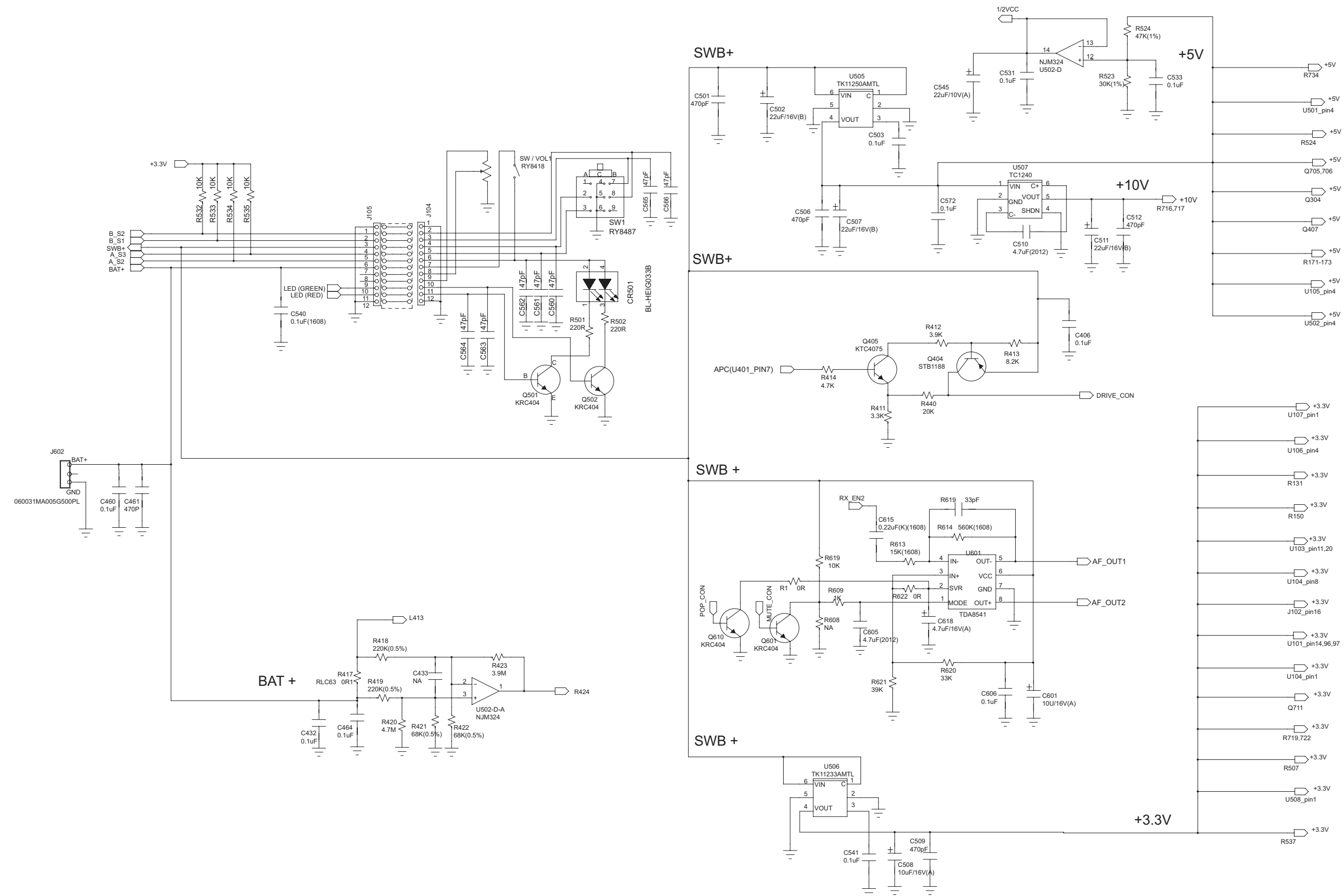


Figure 10-25. Switches and Battery (MDC1200 and QCII) Schematic Diagram

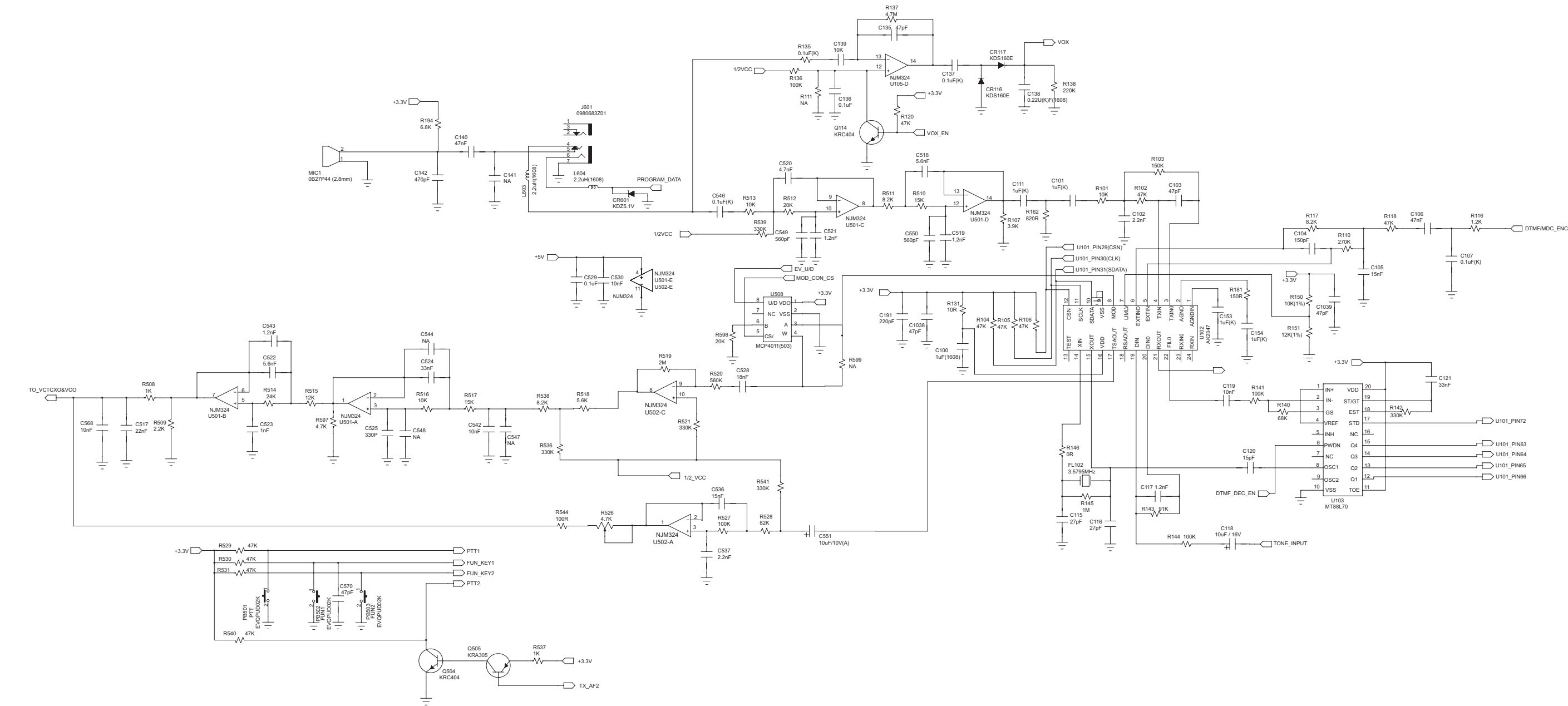


Figure 10-26. Transmitter Audio Filter and Sub-tone (MDC1200 and QCII) Schematic Diagram

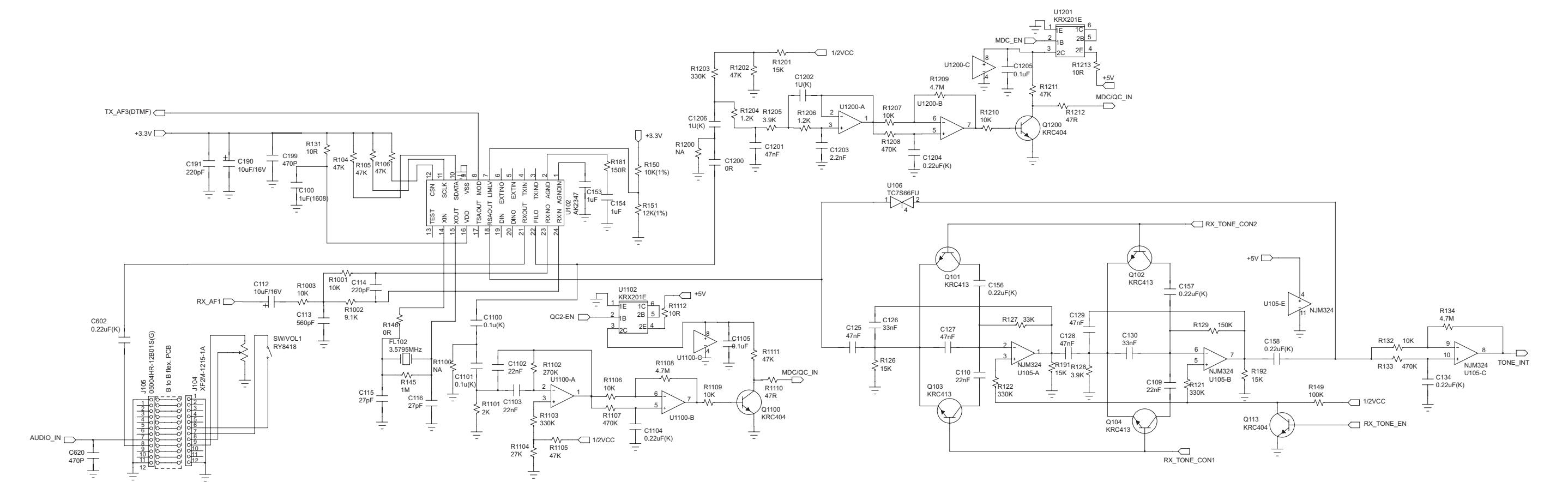


Figure 10-27. Receiver Audio Filter and Sub-tone (MDC1200 and QCII) Schematic Diagram

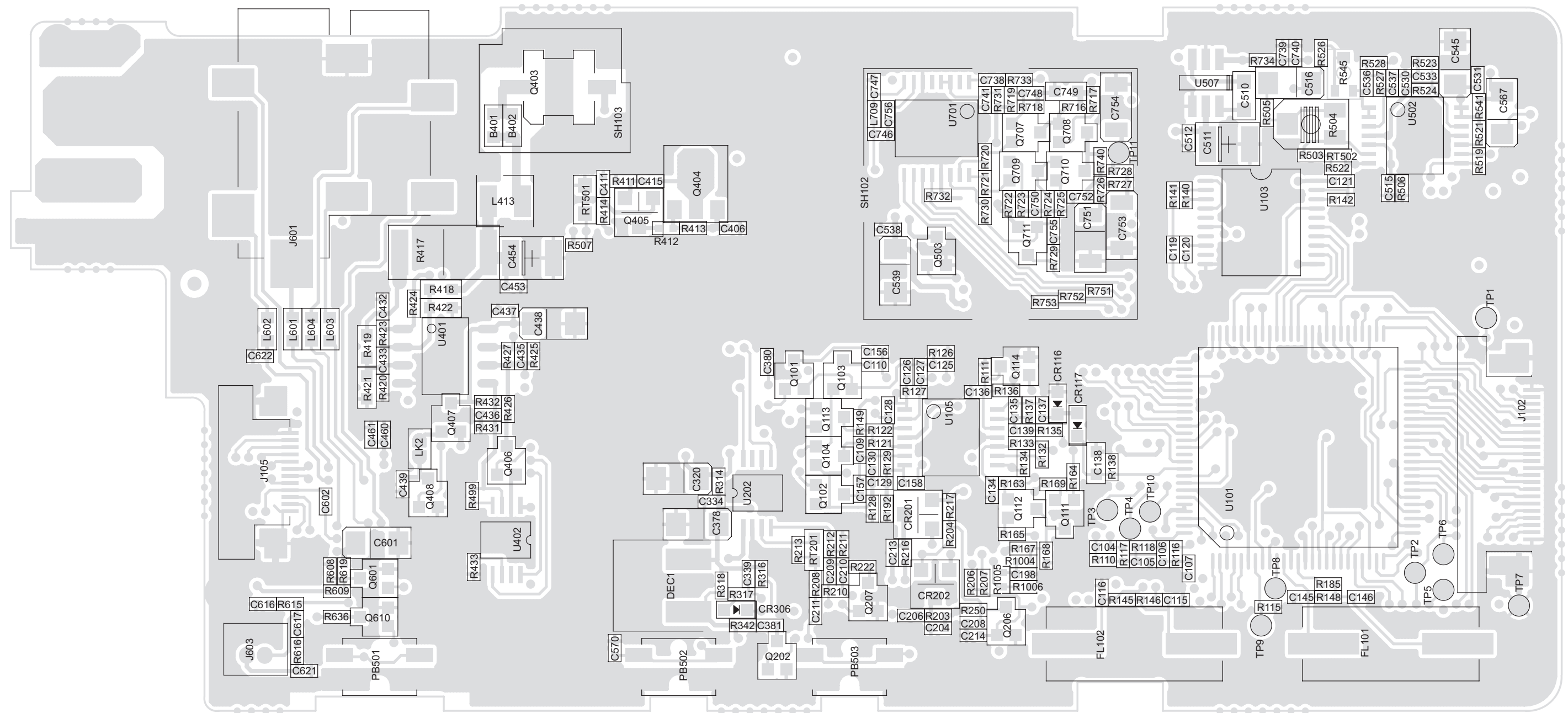


Figure 10-28. VHF (136–174 MHz) Mainboard Top Side: E11-000948-00

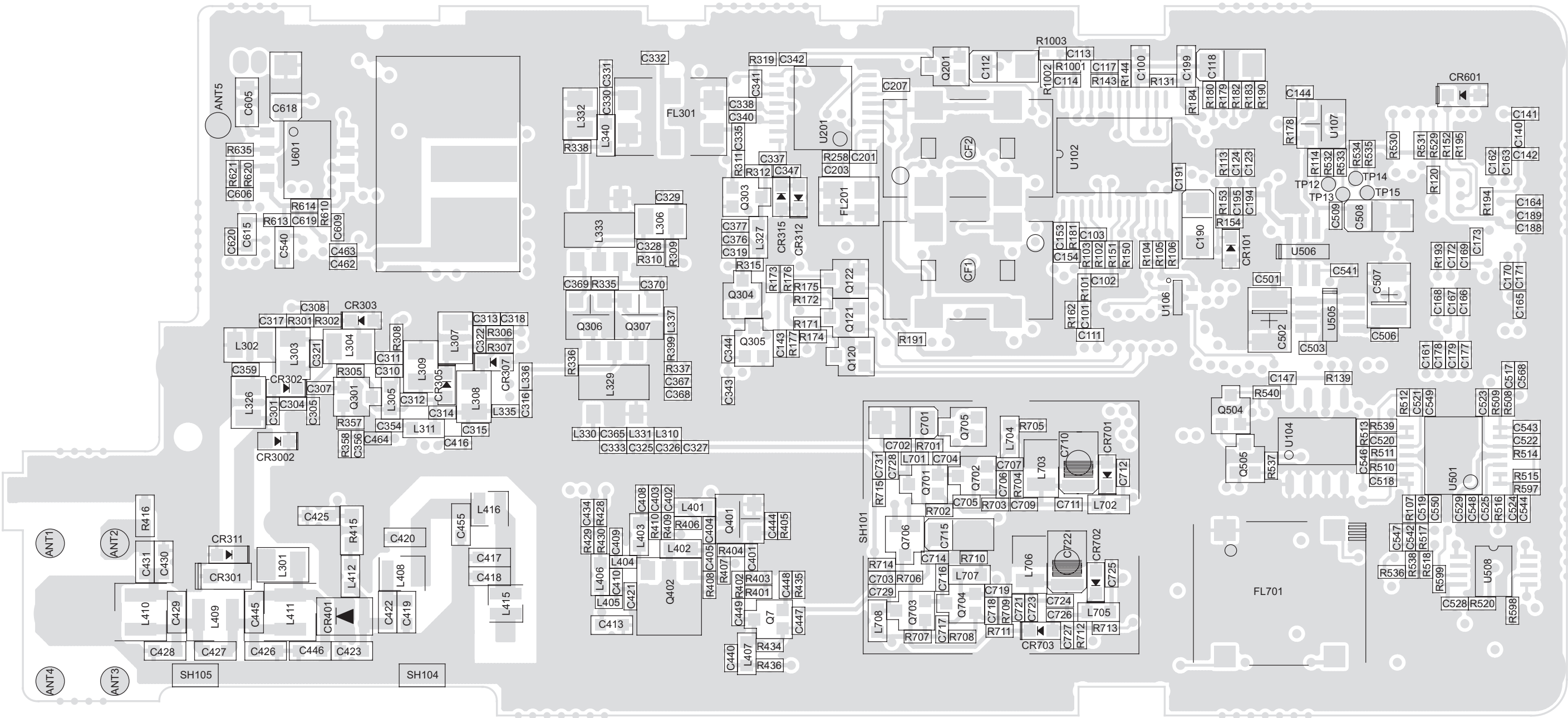


Figure 10-29. VHF (136–174 MHz) Mainboard Bottom Side: E11-000948-00

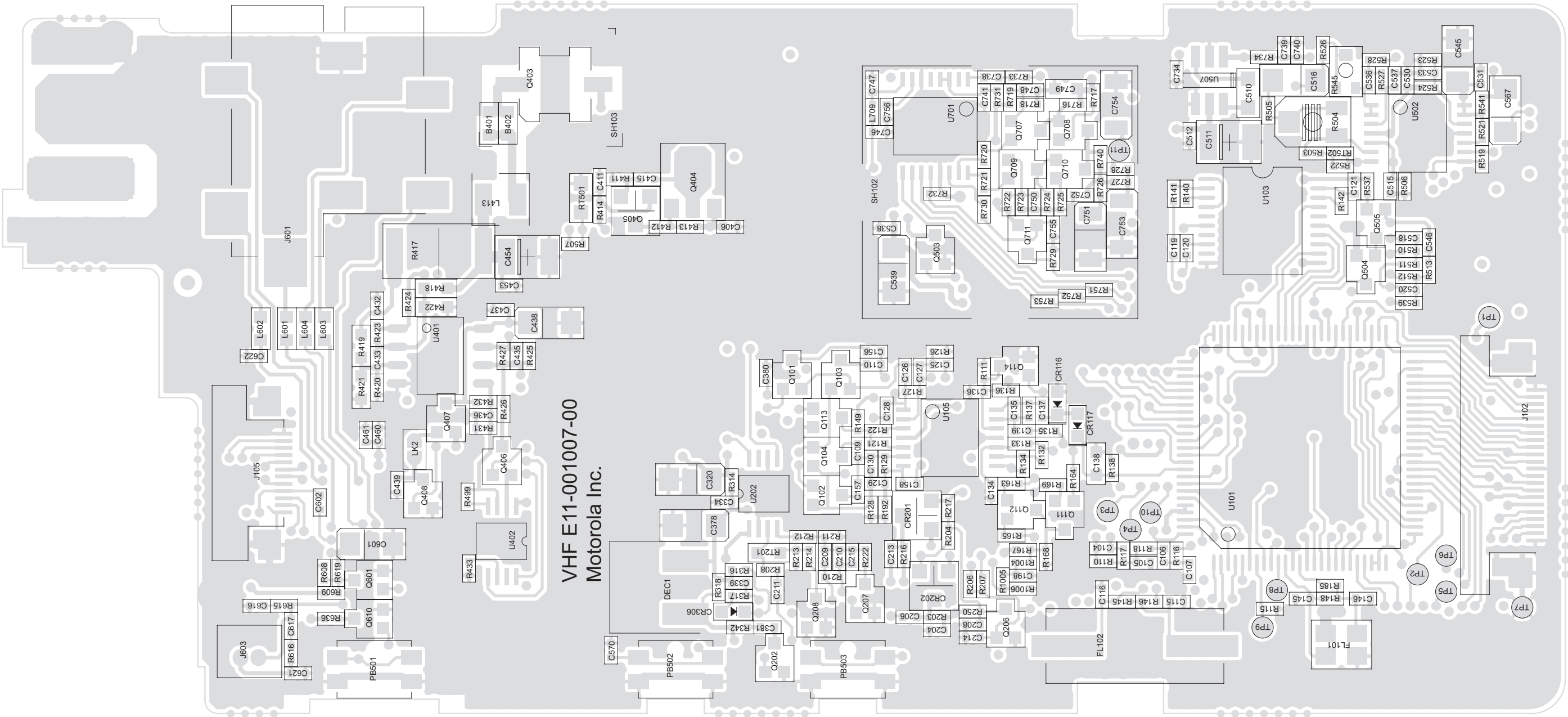


Figure 10-30. VHF (136–174 MHz) Mainboard Top Side: E11-001007-00

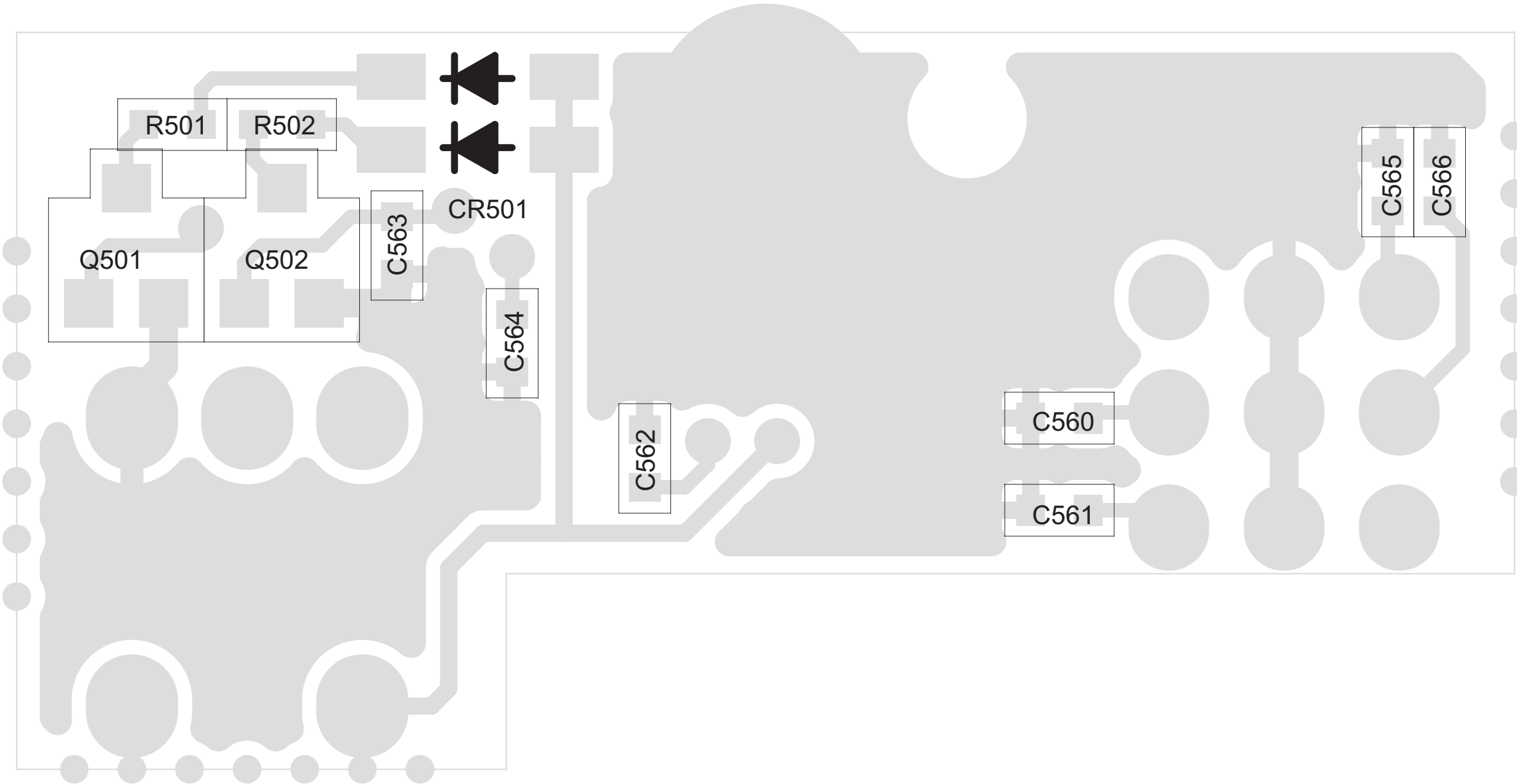


Figure 10-32. VHF (136–174 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

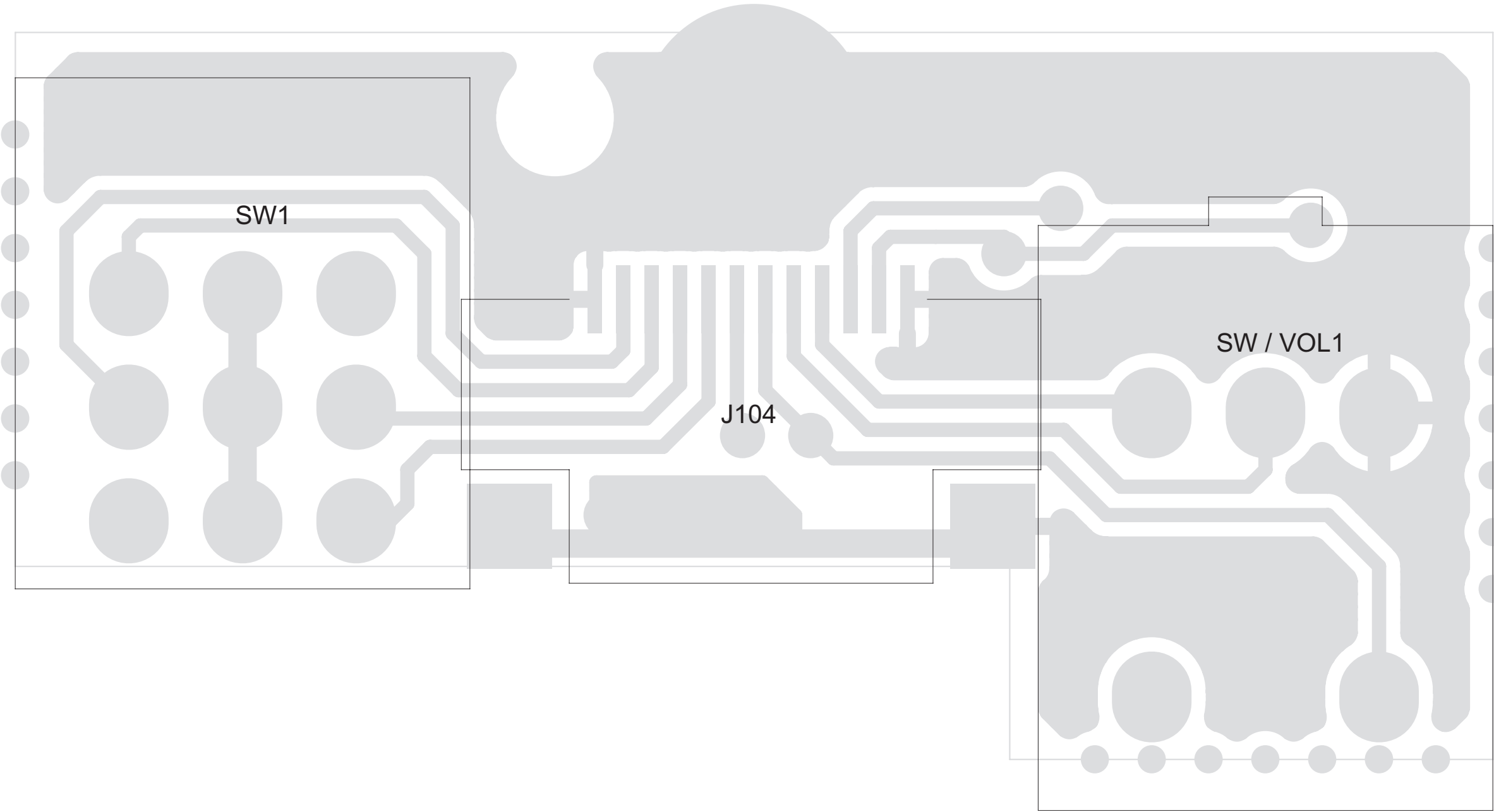


Figure 10-33. VHF (136–174 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

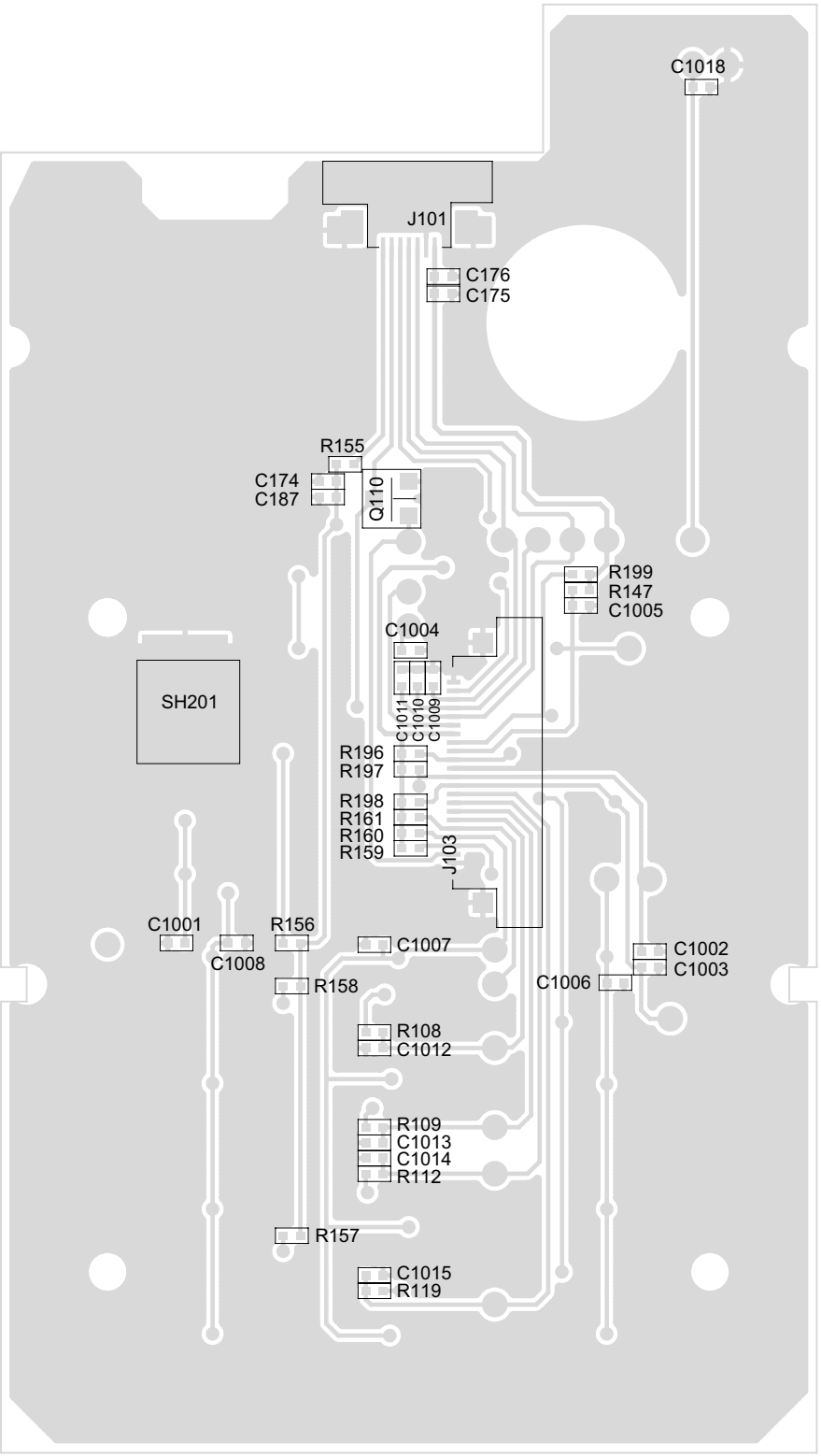
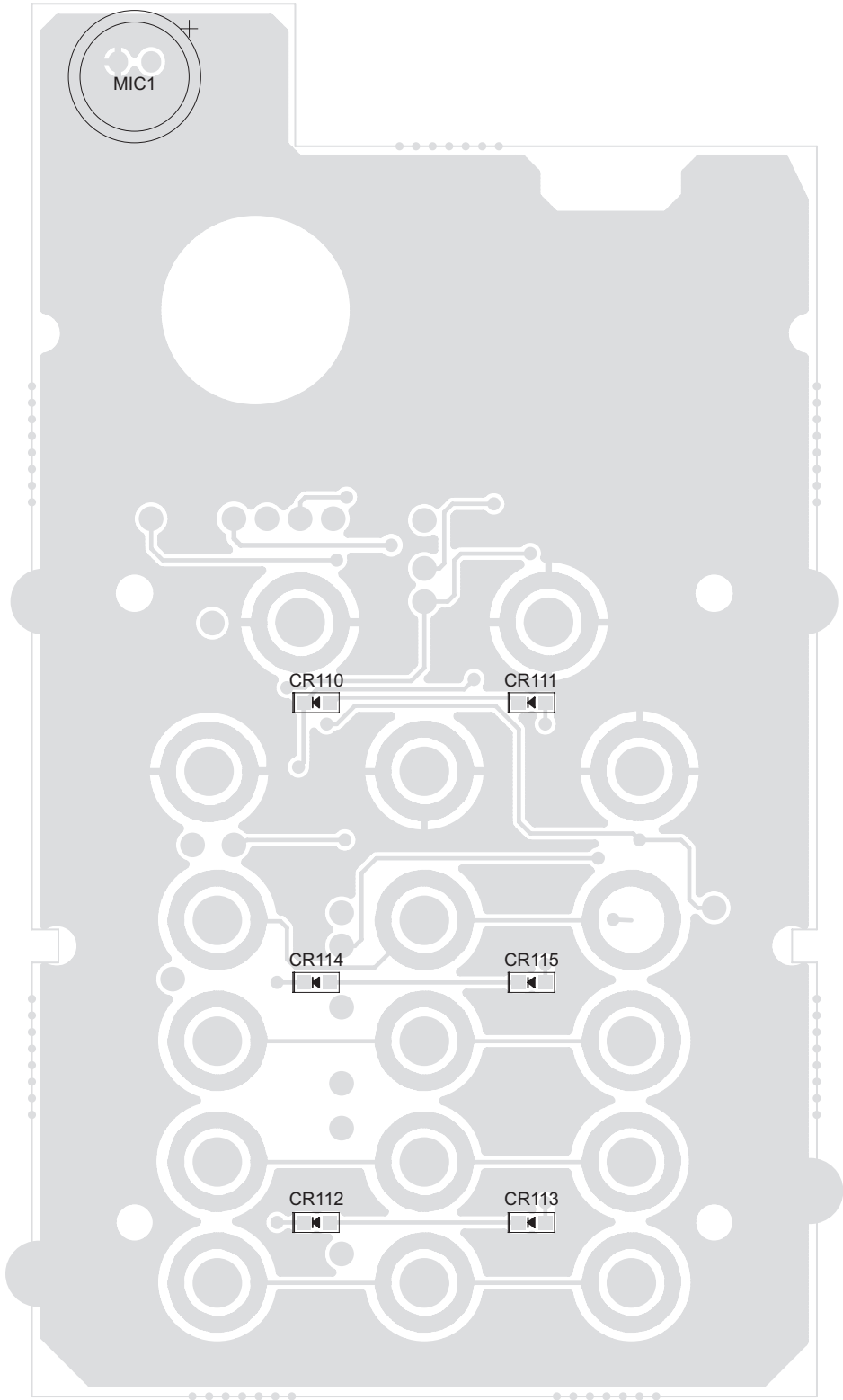


Figure 10-34. VHF (136–174 MHz) Keypad Board: PCB No. E11-000886-00

10.4.2 Parts List (MDC 1200 and QCII)

Circuit Ref.	Supplier	Supplier Part No.	Description
B401	TAIYO YUDEN	E03-0319-0	CHIP FERRITE BEADS, 100 ohm,1608
B402	TAIYO YUDEN	E03-0319-0	CHIP FERRITE BEADS, 100 ohm,1608
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)
C113	TDK	E02-0277-0	Chip Cap,1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C123	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174 ^{1, 2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175 ^{1, 2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176 ^{1, 2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187 ^{1, 2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C190	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C199	TDK	E02-0244-0	Chip Cap, 1608 K 470PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0097-0	Chip Cap, 1005 J 120PF
C204	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C209	TDK	E02-0277-0	Chip Cap,1005 K 560PF
C210	TDK	E02-0277-0	Chip Cap,1005 K 560PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C215 ⁴	TDK	E02-000947-00	Chip Cap. 1005 J 390PF
C301	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C304	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C305	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C307	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C308	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C310	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C311	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C312	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C313	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C314	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C315	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C316	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C317	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C318	TDK	E02-0049-0	Chip Cap, 1005 K 103PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C447	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C320	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)	C401	TDK	E02-0013-0	Chip Cap, 1005 C 5PF	C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C325	TDK	E02-0222-0	Chip Cap, 1005 J 39PF	C404	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C449	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C326	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C405	TDK	E02-0142-0	Chip Cap, 1005 J 20PF	C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C327	TAIYOYUDEN	E03-0074-0	Chip Ind, 1005 J 10N	C406	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C454	AVX	E02-0386-0	Chip Tantal, 22uF-M/16V(B)
C328	TDK	E02-0016-0	Chip Cap, 1005 D 6PF	C409	TDK	E02-0021-0	Chip Cap, 1005 D 8PF	C455	TDK	E02-0094-0	Chip Cap, 1608 J 12PF
C329	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C410	TDK	E02-0273-0	Chip Cap,1005 J 56PF	C460	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C330	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C413	TDK	E02-0198-0	Chip Cap, 1608 J 30PF	C461	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C330	TDK	E02-0108-0	Chip Cap, 1005 J 15PF	C415	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	C462	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C331	TDK	E02-0019-0	Chip Cap, 1005 D 7PF	C416	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C332	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C417	TDK	E02-0109-0	Chip Cap, 1608 J 15PF	C464	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C333	TDK	E02-0180-0	Chip Cap, 1005 J 27PF	C418	TDK	E02-0274-0	Chip Cap,1608 J 56PF	C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C419	TDK	E02-0127-0	Chip Cap, 1608 J 18PF	C502	AVX	E02-0386-0	Chip Tantal, 22uF-M/16V(B)
C335	TDK	E02-0033-0	Chip Cap, 1005 J 100PF	C420	TDK	E02-0015-0	Chip Cap, 1005 C 5PF	C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C421	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF	C422	TDK	E02-0187-0	Chip Cap, 1608 J 270PF	C507	AVX	E02-0386-0	Chip Tantal, 22uF-M/16V(B)
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C425	TDK	E02-0043-0	Chip Cap, 1608 J 1000PF	C508	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C426	TDK	E02-0182-0	Chip Cap, 1608 J 27PF	C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C341 C341 ⁴	TDK TDK	E02-0233-0 E02-000303-00	Chip Cap, 1005 J 47PF Chip Cap, 1005 J 82PF	C427	TDK	E02-0094-0	Chip Cap, 1608 J 12PF	C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C428	TDK	E02-0149-0	Chip Cap, 1608 J 22PF	C511	AVX	E02-0386-0	Chip Tantal, 22uF-M/16V(B)
C343	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C429	TDK	E02-0031-0	Chip Cap, 1005 D 10PF	C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C430	TDK	E02-0094-0	Chip Cap, 1608 J 12PF	C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C347	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C431	TDK	E02-0042-0	Chip Cap, 1608 J 1000PF	C516	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)
C354	TDK	E02-0024-0	Chip Cap, 1005 D 9PF	C432	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C517	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C356	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C518	TDK	E02-0279-0	Chip Cap,1005 K 562PF
C359	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C435	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C367	TDK	E02-0153-0	Chip Cap, 1005 J 220PF	C436	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C520	TDK	E02-0247-0	Chip Cap, 1005 K 472PF
C368	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C376	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C439	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C522	TDK	E02-0279-0	Chip Cap,1005 K 562PF
C378	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)	C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C523	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C380	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C445	TDK	E02-0025-0	Chip Cap, 1005 D 9PF	C524	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
				C446	TDK	E02-0149-0	Chip Cap, 1608 J 22PF	C525	TDK	E02-0211-0	Chip Cap, 1005 K 330PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF	C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C728	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF	C729	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C730	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C731	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C618	AVX	E02-0406-0	Chip Tantal, 4.7uF-M/16V(A)	C734	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C536	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C620	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C739	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C621	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C539	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)	C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF	C701	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C746	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C702	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C747	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C704	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C543	TDK	E02-0100-0	Chip Cap, 1005 K 122PF	C705	TDK	E02-0016-0	Chip Cap, 1005 D 6PF	C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C545	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C706	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C707	TDK	E02-0180-0	Chip Cap, 1005 J 27PF	C751	AVX	E02-0341-0	Chip Tantal, 1uF-M/35V(A)
C549	TDK	E02-0277-0	Chip Cap,1005 K 560PF	C709	TDK	E02-0029-0	Chip Cap, 1005 D 10PF	C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C550	TDK	E02-0277-0	Chip Cap,1005 K 560PF	C710	MURATA	E02-0427-0	Chip Trimmer Cap, 2PIE 10PF	C753	TDK	E02-0322-0	Chip Cap,3216 J 473PF
C560 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C711	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C754	TDK	E02-0322-0	Chip Cap,3216 J 473PF
C561 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C562 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C714	TDK	E02-0040-0	Chip Cap, 1005 K 102PF	C756	TDK	E02-0040-0	Chip Cap, 1005 K 102PF
C563 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C715	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C1001 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C1002 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C717	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C1003 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C566 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C718	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C1004 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C567	AVX	E02-0350-0	Chip Tantal, 10uF-M/10V(A)	C719	TDK	E02-0180-0	Chip Cap, 1005 J 27PF	C1005 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C568	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C721	TDK	E02-0093-0	Chip Cap, 1005 J 12PF	C1006 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C722	MURATA	E02-0427-0	Chip Trimmer Cap, 2PIE 10PF	C1007 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C601	AVX	E02-0829-0	Chip Tantal, 10uF-M/16V(A)	C723	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C1008 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	C724	TDK	E02-0273-0	Chip Cap,1005 J 56PF	C1009 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF	C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF	C1010 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C726	TDK	E02-0016-0	Chip Cap, 1005 D 6PF				
				C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF				

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C1011 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR301	BGTech	E06-0022-0	SWITCH DIODE, KDS-114	J102	BGTech	E10-0173-0	YUNHO, FPC CONNECTOR, 05004HR-22A01S
C1012 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR302	KEC	E06-0071-0	VARIABLE DIODE3, KDV269E(ESM)	J103 ^{1, 2, 3}	BGTech	E10-0171-0	KYOCERA, FPC CONNECTOR, 04-6292-022-000-800+
C1013 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR303	KEC	E06-0071-0	VARIABLE DIODE3, KDV269E(ESM)	J104 ^{1,2,3}	BGTech	E10-0169-0	OMIRON, FPC CONNECTOR, XF2M-1215-1A
C1014 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR305	KEC	E06-0071-0	VARIABLE DIODE3, KDV269E(ESM)	J105	BGTech	E10-0349-0	0.5mm PITCH 12PIN TOP CONTACT, Gold Plate
C1015 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	CR306	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	J601	BGTech	E10-0014-0	CHI CHENG, SPK MIC JACK, 0980683Z01-D
C1018 ^{1, 2, 3}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF	CR307	KEC	E06-0071-0	VARIABLE DIODE3, KDV269E(ESM)	J602	BGTech	E10-0081-0	SUYIN, BATTERY CONNECTOR, 060031MA005G500PL
C1100	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	CR312	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	L301	TAIYOYUDEN	E03-0157-0	Chip Ind, 2520 K 68N
C1101	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	CR315	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)	L302	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)
C1102	TDK	E02-0162-0	Chip Cap, 1005 K 223PF	CR401	BGTech	E06-0025-0	SWITCH DIODEPIN DIODE MA2S077	L303	DELTA	9270012011820	Chip Ind, 2012 12NH G (Tolerance 2%)
C1103	TDK	E02-0162-0	Chip Cap, 1005 K 223PF	CR501 ^{1,2,3}	BRIGHT LED	E07-0041-0	LED DIODE, BL-HEIG033B-TR	L304	DELTA	9270068011820	Chip Ind, 2012 68NH G (Tolerance 2%)
C1104	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	CR601	BGTech	E06-0031-0	ZENER DIODE	L305	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
C1105	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	CR701	KEC	E06-0072-0	VARIABLE DIODE3, KDV300E(ESM)	L306	DELTA	9270820N11820	Chip Ind, 2012 820NH G (Tolerance 2%)
C1200	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	CR702	KEC	E06-0072-0	VARIABLE DIODE3, KDV300E(ESM)	L307	DELTA	9270012011820	Chip Ind, 2012 12NH G (Tolerance 2%)
C1201	TDK	E02-0250-0	Chip Cap, 1005 K 473PF	CR703	KEC	E06-0072-0	VARIABLE DIODE3, KDV300E(ESM)	L308	DELTA	9270068011820	Chip Ind, 2012 68NH G (Tolerance 2%)
C1202	TDK	E02-0070-0	Chip Cap, 1005 K 105PF	DEC1	BGTech	E17-0037-0	CQ, Discriminator, JTBC455C24(LCP)	L309	DELTA	9270022011820	Chip Ind, 2012 22NH G (Tolerance 2%)
C1203	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	FL101	BGTech	E08-000152-00	SHINSUNG, Crystal, 14.7456MHz	L310	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N
C1204	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	FL102	BGTech	E08-0036-0	SHINSUNG, Crystal, 3.5795MHz (H : 2.8mm)	L311	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
C1205	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	FL201	BGTech	E08-0043-0	SHINSUNG, Crystal, 44.645MHz (SMD)	L326	DELTA	9270022111820	Chip Ind, 2012 220NH G (Tolerance 2%)
C1206	TDK	E02-0070-0	Chip Cap, 1005 K 105PF	FL301	BGTech	E17-0026-0	SHINSUNG, Crystal Filter, MCF 45.15S12.B (8.5KHz)	L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
CF1	BGTech	E17-0003-0	TOKO, Ceramic Filter, ELFY455F	FL701	BGTech	E08-0055-0	SHINSUNG, VCTCXO, 12.8 MHZ	L329	BGTech	E03-0185-0	TOKO, #617PT-1664
CF1 ⁴	BGTech	E17-000057-00	CQ, Ceramic Filter, LTWC455F	J101 ^{1, 2}	BGTech	E10-0167-0	YUNHO, FPC CONNECTOR, 05004HR-07C01S(G)	L330	TAIYOYUDEN	E03-0160-1	Chip Ind, 1005 J 82N
CF2	BGTech	E17-0004-0	TOKO, Ceramic Filter, ELFY455H					L331	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N
CF2 ⁴	BGTech	E17-000058-00	CQ, Ceramic Filter, LTWC455H								
CR110 ²	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR								
CR111 ²	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR								
CR116	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)								
CR117	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)								
CR201	KEC	E06-0005-0	SWITCH DIODE, KDS 181								
CR202	KEC	E06-0005-0	SWITCH DIODE, KDS 181								

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
L332	DELTA	9270820N11820	Chip Ind, 2012 820NH G (Tolerance 2%)	L707	TAIYOYUDEN	E03-0097-0	Chip Ind, 1608 K 1uH	Q306	BGTech	E05-0084-0	2SK711 TOSHIBA FET N-Channel Transistor
L333	BGTech	E03-0184-0	TOKO, #617PT-1664	L708	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q307	BGTech	E05-0084-0	2SK711 TOSHIBA FET N-Channel Transistor
L335	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N	L709	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N	Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
L336	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N	MIC ^{1, 2, 3}	BGTech	E19-0009-0	BSE, C-MIC, 6.0*2.7/ 2.2K Ω ,2V,-44 \pm 3dB, Pin type	Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
L337	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N	PB501	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K	Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor
L340	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH	PB502	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K	Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
L365	TAIYOYUDEN	E03-0132-1	Chip Ind, 1005 J 47N	PB503	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K	Q405	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
L401	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q7	KEC	E05-0054-0	2SC4226 BJT NPN Transistor	Q406	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L403	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q101	KEC	E05-0061-0	KRC 413 BJT NPN Transistor	Q407	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
L404	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N	Q102	KEC	E05-0061-0	KRC 413 BJT NPN Transistor	Q408	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L405	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N	Q103	KEC	E05-0061-0	KRC 413 BJT NPN Transistor	Q501 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q104	KEC	E05-0061-0	KRC 413 BJT NPN Transistor	Q502 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L407	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	Q110 ^{1, 2}	KEC	E05-0015-0	KRC 404 BJT NPN Transistor	Q503	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L408	DAERIM	E03-0034-0	Coil Air, 0.28-1.1-6TL	Q111	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor	Q504	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L409	DAERIM	E03-0053-0	Coil Air, 0.35-1.6-6TL	Q112	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor	Q505	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
L410	DAERIM	E03-0053-0	Coil Air, 0.35-1.6-6TL	Q113	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q601	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L411	DAERIM	E03-0053-0	Coil Air, 0.35-1.6-6TL	Q114	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q610	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
L412	TAIYOYUDEN	E03-0097-0	Chip Ind, 1608 K 1uH	Q120	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q701	KEC	E05-0054-0	2SC4226 BJT NPN Transistor
L413	DAERIM	E03-0051-0	Coil Air, 0.35-1.6-7TL	Q121	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q702	KEC	E05-0054-0	2SC4226 BJT NPN Transistor
L415	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q122	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q703	KEC	E05-0054-0	2SC4226 BJT NPN Transistor
L416	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL	Q201	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q704	KEC	E05-0054-0	2SC4226 BJT NPN Transistor
L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q202	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q705	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q206	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q706	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
L603	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q207	KEC	E05-0032-0	KRC 404 BJT NPN Transistor	Q707	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q208 ⁴	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor	Q708	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
L701	TAIYOYUDEN	E03-0165-1	Chip Ind, 1005 J 100nH	Q301	KEC	E05-0054-0	2SC4226 BJT NPN Transistor	Q709	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH	Q303	KEC	E05-0054-0	2SC4226 BJT NPN Transistor	Q710	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
L703	DAERIM	E03-0034-0	Coil Air, 0.28-1.1-6TL	Q304	KEC	E05-0028-0	KRA 305 BJT PNP Transistor	Q711	KEC	E05-0027-0	KRA 304 BJT PNP Transistor
L704	TAIYOYUDEN	E03-0097-0	Chip Ind, 1608 K 1uH	Q305	KEC	E05-0032-0	KRC 404 BJT NPN Transistor				
L705	TAIYOYUDEN	E03-0296-0	Chip Ind, 1608 K 2.7uH								
L706	DAERIM	E03-0010-0	Coil Air, 0.3-1.4-6TL								

Circuit Ref.	Supplier	Supplier Part No.	Description
Q1100	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q1200	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R132	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R133	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R134	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R143	KAMAYA	E01-0401-0	Chip Res, 1005 J 91KΩ
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R147 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R149	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KΩ
R155 ^{1, 2}	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R156 ^{1, 2}	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R160 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R165	KAMAYA	E01-0217-0	Chip Res, 1005 F 3KΩ
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R174	KAMAYA	E01-0089-1	Chip Res, 1005 J 120KΩ
R175	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R176	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ
R177	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R189	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R191	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R192	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0352-0	Chip Res, 1005 J 6.8KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199 ^{1, 2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ
R204 R204 ⁴	KAMAYA KAMAYA	E01-000218-00 E01-000218-00	Chip Res, 1005 J 3KΩ Chip Res. 1005 J 3KΩ
R206 R206 ⁴	KAMAYA KAMAYA	E01-000218-00 E01-000218-00	Chip Res, 1005 J 3KΩ Chip Res. 1005 J 3KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R207 R207 ⁴	KAMAYA KAMAYA	E01-0056-1 E01-000323-00	Chip Res, 1005 J 10KΩ Chip Res. 1005 J 5.6KΩ	R318 R318 ⁴	KAMAYA KAMAYA	E01-0172-1 E01-000152-00	Chip Res, 1005 J 2.2KΩ Chip Res. 1005 J 2KΩ	R422	VIKING	E01-1141-0	Chip Res, 1608 B 68KΩ
R208 R208 ⁴	KAMAYA KAMAYA	E01-0152-0 E01-000107-00	Chip Res, 1005 J 2KΩ Chip Res. 1005 J 1.5KΩ	R319 R319 ⁴	KAMAYA KAMAYA	E01-0263-1 E01-000201-00	Chip Res, 1005 J 3.9KΩ Chip Res. 1005 J 2.7KΩ	R423	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ
R210	KAMAYA	E01-0089-1	Chip Res, 1005 J 120KΩ	R333	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R211	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R336	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R425	KAMAYA	E01-0192-0	Chip Res, 1005 J 2.4KΩ
R212	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R337	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R426	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R213 R213 ⁴	KAMAYA KAMAYA	E01-0157-0 E01-000289-01	Chip Res, 1005 J 20KΩ Chip Res. 1005 J 4.7KΩ	R338	TDK	E02-0003-0	Chip Cap, 1005 C 1PF	R427	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R214 ⁴	KAMAYA	E01-000369-00	Chip Res. 1005 J 7.5KΩ	R342	KAMAYA	E01-0352-0	Chip Res, 1005 J 6.8KΩ	R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R216	KAMAYA	E01-0289-1	Chip Res, 1005 F 4.7KΩ	R357	KAMAYA	E01-0146-0	Chip Res, 1005 J 1Ω	R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R217 R217 ⁴	KAMAYA KAMAYA	E01-000218-00 E01-000218-00	Chip Res, 1005 J 3KΩ Chip Res. 1005 J 3KΩ	R358	KAMAYA	E01-0146-0	Chip Res, 1005 J 1Ω	R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R222 R222 ⁴	KAMAYA KAMAYA	E01-0081-0 E01-000317-00	Chip Res, 1005 J 1.2KΩ Chip Res. 1005 J 560Ω	R399	KAMAYA	E01-0345-0	Chip Res, 1005 J 68Ω	R431	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R432	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R258 R258 ⁴	KAMAYA KAMAYA	E01-0107-0 E01-000056-01	Chip Res, 1005 J 1.5KΩ Chip Res. 1005 J 10KΩ	R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω	R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R301	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R302	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R404	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R435	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R305	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ	R405	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ	R436	KAMAYA	E01-0280-0	Chip Res, 1005 J 47Ω
R306	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R406	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R499	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R307	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R407	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R501 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R308	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω	R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ	R502 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R309	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R503	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R310	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	R504	NOBLE	E01-0468-0	Chip Semi VR, 3PIE 47 KΩ
R311	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω	R411	KAMAYA	E01-0238-0	Chip Res, 1005 J 3.3KΩ	R505	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R312	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ	R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R414	KAMAYA	E01-0289-1	Chip Res, 1005 F 4.7KΩ	R507	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R415	KAMAYA	E01-0170-0	Chip Res, 1005 J 220Ω	R508	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ	R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R317 R317 ⁴	KAMAYA KAMAYA	E01-0089-1 E01-000143-00	Chip Res, 1005 J 120KΩ Chip Res. 1005 J 180KΩ	R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω	R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
				R418	VIKING	E01-1142-0	Chip Res, 1608 B 220KΩ	R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
				R419	VIKING	E01-1142-0	Chip Res, 1608 B 220KΩ	R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
				R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ	R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
				R421	VIKING	E01-1141-0	Chip Res, 1608 B 68KΩ	R514	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
								R515	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
								R516	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R517	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R518	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KΩ	R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R519	KAMAYA	E01-1034-0	Chip Res, 1005 J 2MΩ	R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ	R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R520	KAMAYA	E01-0330-0	Chip Res, 1005 J 560KΩ	R635	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R636	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω	R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R522	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ	R701	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ	R702	KAMAYA	E01-0217-0	Chip Res, 1005 F 3KΩ	R740	KAMAYA	E01-0136-0	Chip Res, 1005 J 1.8KΩ
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ	R703	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ	R751	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R526	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R704	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ	R752	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R527	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R705	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R753	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ	R706	KAMAYA	E01-0280-0	Chip Res, 1005 J 47Ω	R773	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R707	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ	R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R708	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ	R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R709	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ	R1003	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R710	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω	R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R1101	KAMAYA	E01-0152-0	Chip Res, 1005 J 2KΩ
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R713	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R1102	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R714	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R1103	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R538	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	R715	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R1104	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R716	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω	R1105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ	R717	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω	R1106	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ	R718	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R1107	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R545	NOBLE	E01-0467-0	Chip Semi VR, 2PIE 4.7 KΩ	R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R1108	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R597	KAMAYA	E01-0289-1	Chip Res, 1005 F 4.7KΩ	R720	KAMAYA	E01-0199-0	Chip Res, 1005 J 270Ω	R1109	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R598	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ	R721	KAMAYA	E01-0199-0	Chip Res, 1005 J 270Ω	R1110	KAMAYA	E01-0280-0	Chip Res, 1005 J 47Ω
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	R722	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ	R1111	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R723	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ	R1112	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ	R724	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω	R1201	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R614	KAMAYA	E01-0330-0	Chip Res, 1005 J 560KΩ	R725	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R1202	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R726	KAMAYA	E01-0192-0	Chip Res, 1005 J 2.4KΩ	R1203	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ	R1204	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R1205	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R1206	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R1207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1208	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R1209	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R1210	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1211	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1212	KAMAYA	E01-0280-0	Chip Res, 1005 J 47Ω
R1213	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R4112	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
RT201 RT201 ⁴	TAIYOYUDEN TAIYOYUDEN	E01-0478-0 E01-001138-00	Chip Thermistor 103K Thermistor. 1608 K 1K
RT501	TAIYOYUDEN	E01-0478-0	Chip Thermistor 103K
RT502	TAIYOYUDEN	E01-0486-0	Chip Thermistor 47K (1005)
SW/VOL ^{1 3}	BGTech	E01-1032-0	TOKOS, Switch Volume, RY-8418 Rev1
SW ^{1 3}	BGTech	E09-000048-00	TOKOS, Channel Switch Volume, RY-8487
U101	BGTech	E04-000754-00	RENESAS ,CPU IC, M3030RFGPGP
U102	BGTech	E04-0114-0	ASAHI KASEL, AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	ZERLINK, DTMF RECEIVER, MT88L70
U104	BGTech	E04-000755-00	MIRCO CHIP, EEPROM IC, 24LC128L
U105	JRC	E04-0185-0	OP AMP, NJM324
U106	BGTech	E04-0211-0	TOSHIBA, Analog SW IC, TC7S66FU
U107	BGTech	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201	BGTech	E04-0195-0	TOSHIBA, FM IC, TA31136
U202	BGTech	E04-0263-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(503)
U401	JRC	E04-0187-0	OP AMP (DUAL), KIA358

Circuit Ref.	Supplier	Supplier Part No.	Description
U402	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	OP AMP, NJM324
U502	JRC	E04-0185-0	OP AMP, NJM324
U505	BGTech	E04-0150-0	TOKO, REGULATOR IC, TK11250AMTL
U506	BGTech	E04-000588-00	TOKO, REGULATOR IC, TK11233AMTL
U507	BGTech	E04-0207-0	MICRO CHIP, VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	MIRCO CHIP,DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	PHILIPS, AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	FUJISU, PLL IC, MB15E03SLPFV1-(ER)-E1
U1100	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1102	KEC	E05-000181-00	KEC, Doul Switch Transistor, KRX201E
U1200	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1201	KEC	E05-000181-00	KEC, Doul Switch Transistor, KRX201E
PCB1	BGTech	E11-000948-00	Main PCB, FR4 4 LAYER PCB Rev#MP01
PCB1 ⁴	BGTech	E11-001007-00	Main PCB, FR4 4 LAYER PCB Rev#MP02
SUB PCB1 ^{1, 2, 3}	BGTech	E11-000002-02	CAFSYSTEM, Sub PCB, 1.2T 2Layer
KEY PCB1 ^{1,2,3}	BGTech	E11-000886-00	CAFSYSTEM, Key PCB, 1.2T 2Layer

Note:

1. For PMUD2931AAE Model
2. For PMUD2932AAE Model
3. For PMUD2937AAE Model
4. Only for PCB No. *E11-001007-00*

Notes

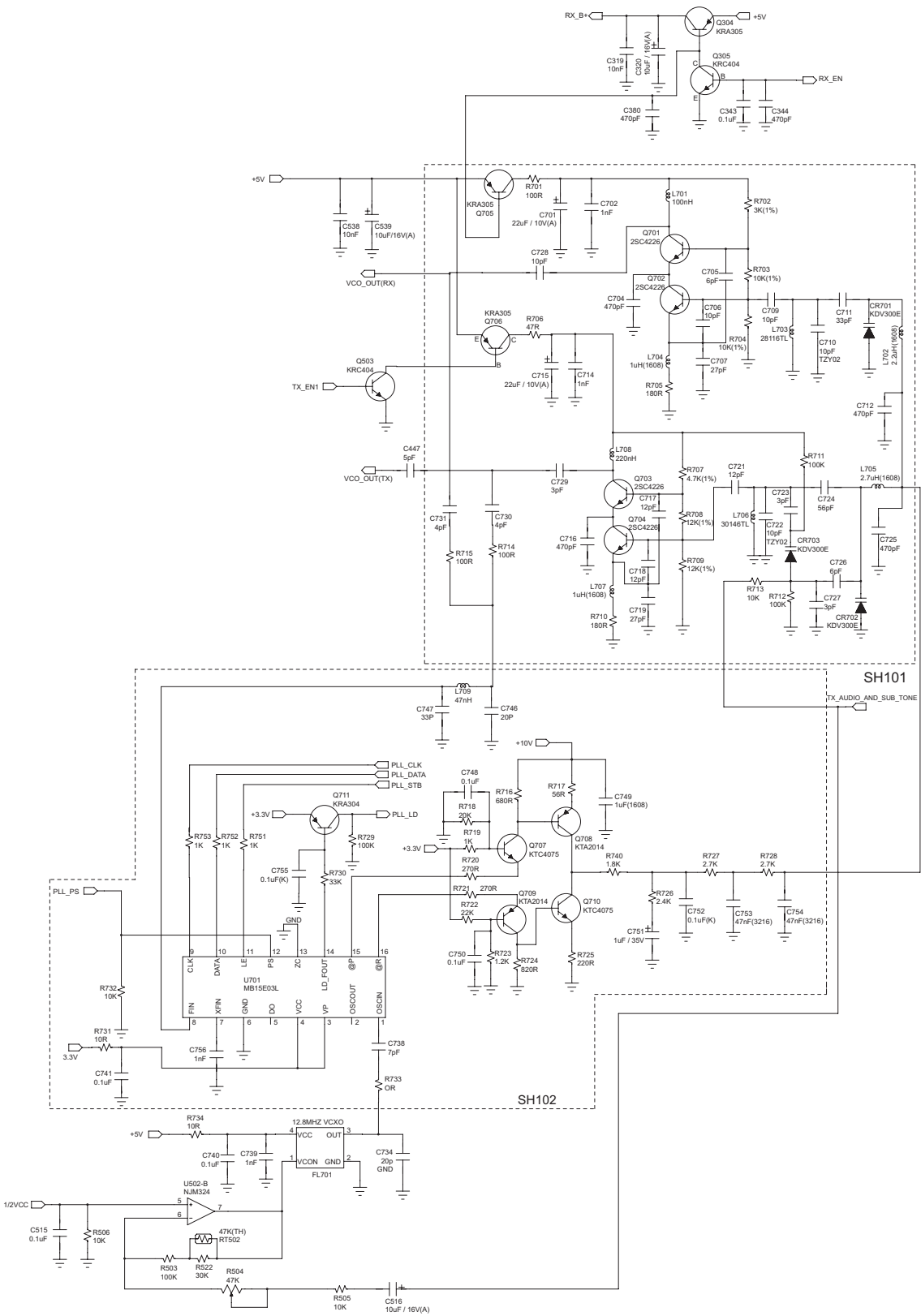


Figure 10-36. MDC/QCII R&TTE VCO and PLL Schematic Diagram

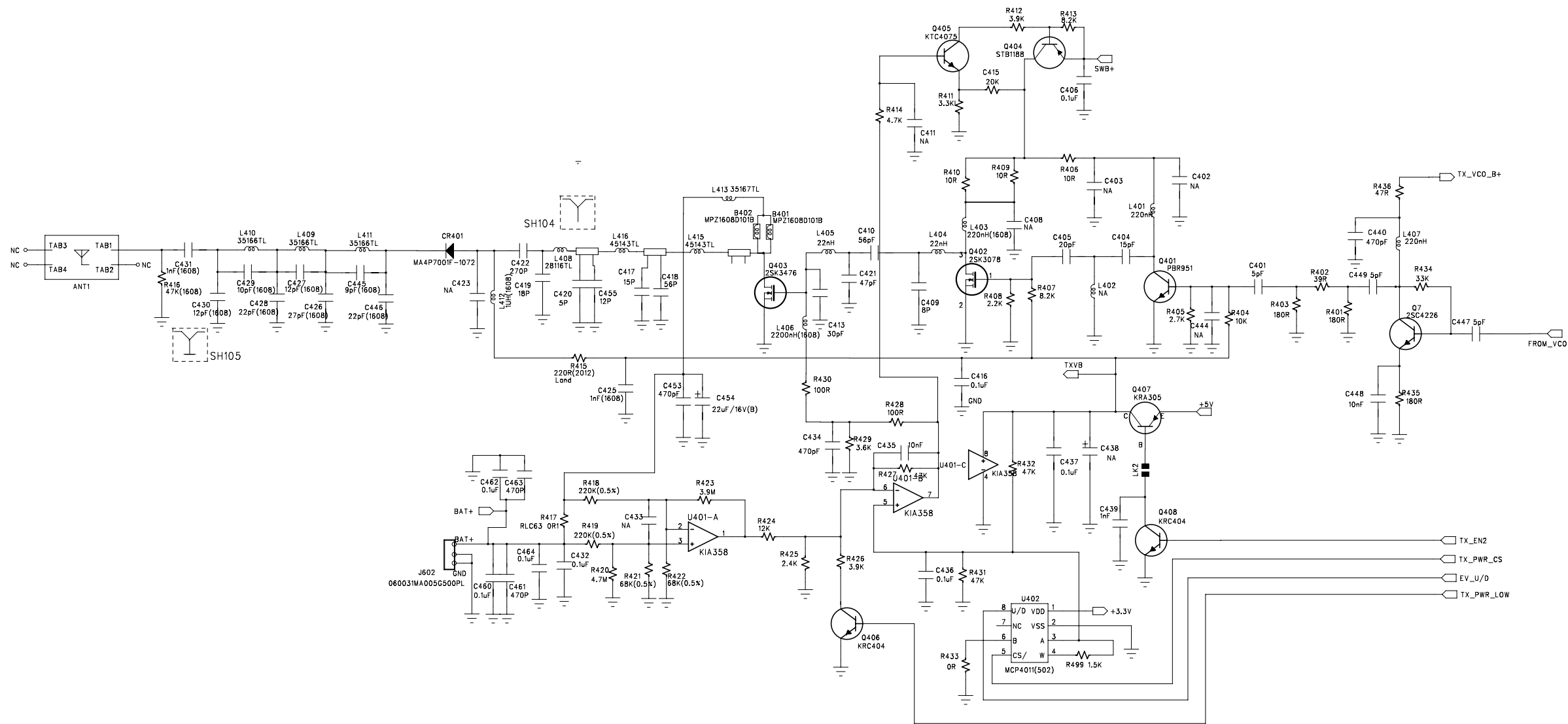


Figure 10-37. (MDC/QCII R&TTE) Transmitter Schematic Diagram

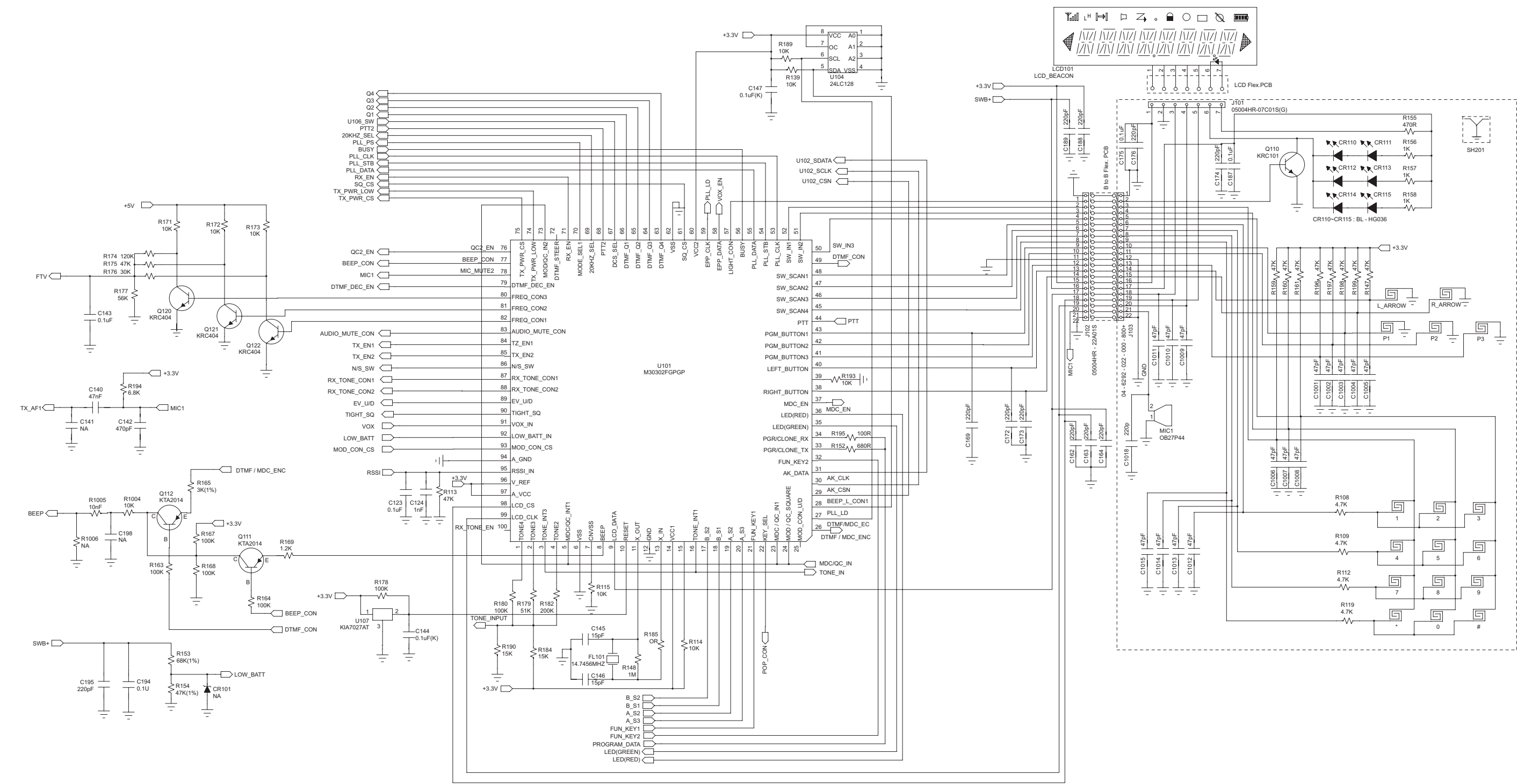


Figure 10-38. MDC/QCII R&TTE Microprocessor and Keypad Schematic Diagram

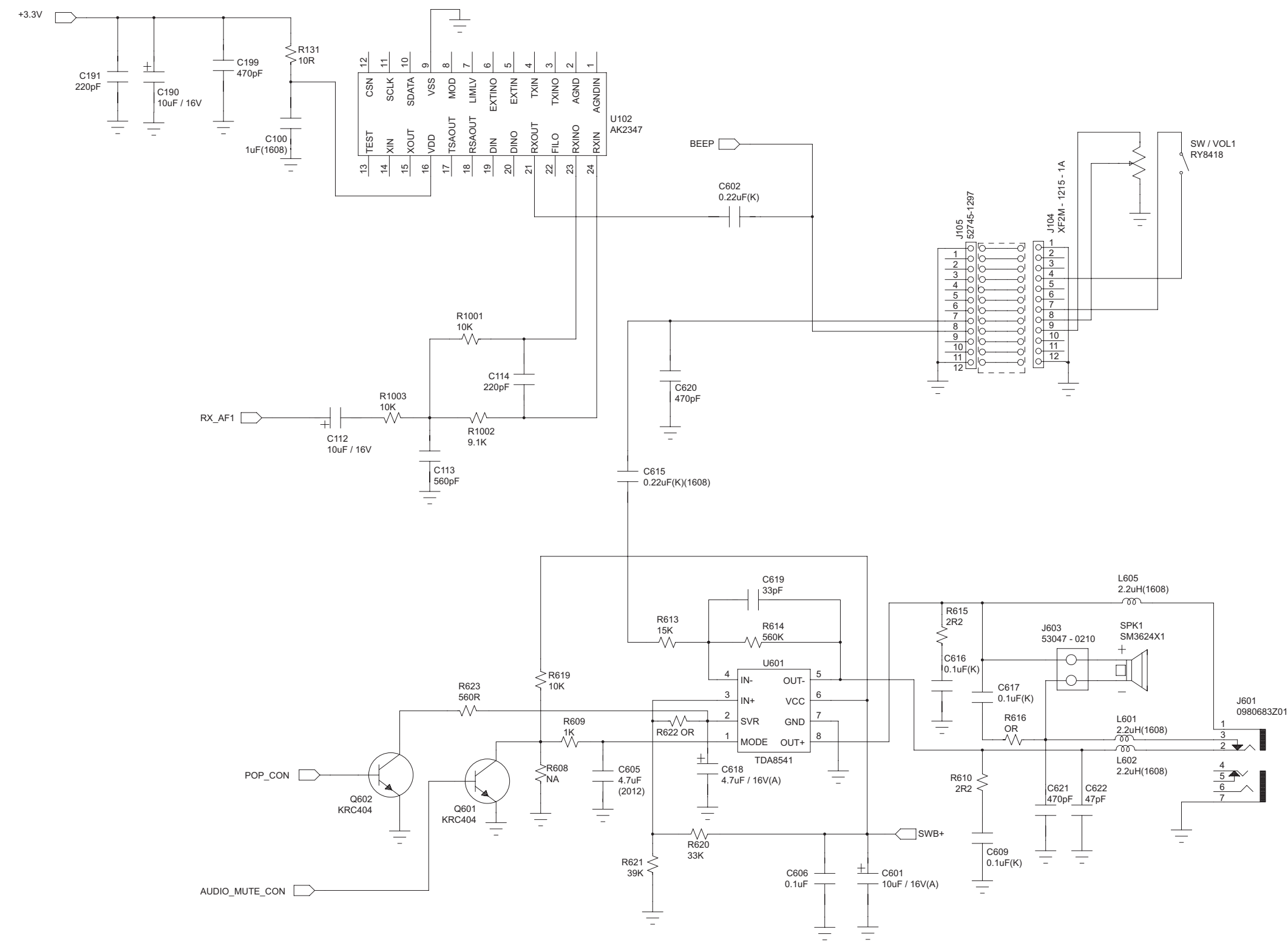


Figure 10-39. MDC/QCII R&TTE Audio Power Amplifier and External Audio Schematic Diagram

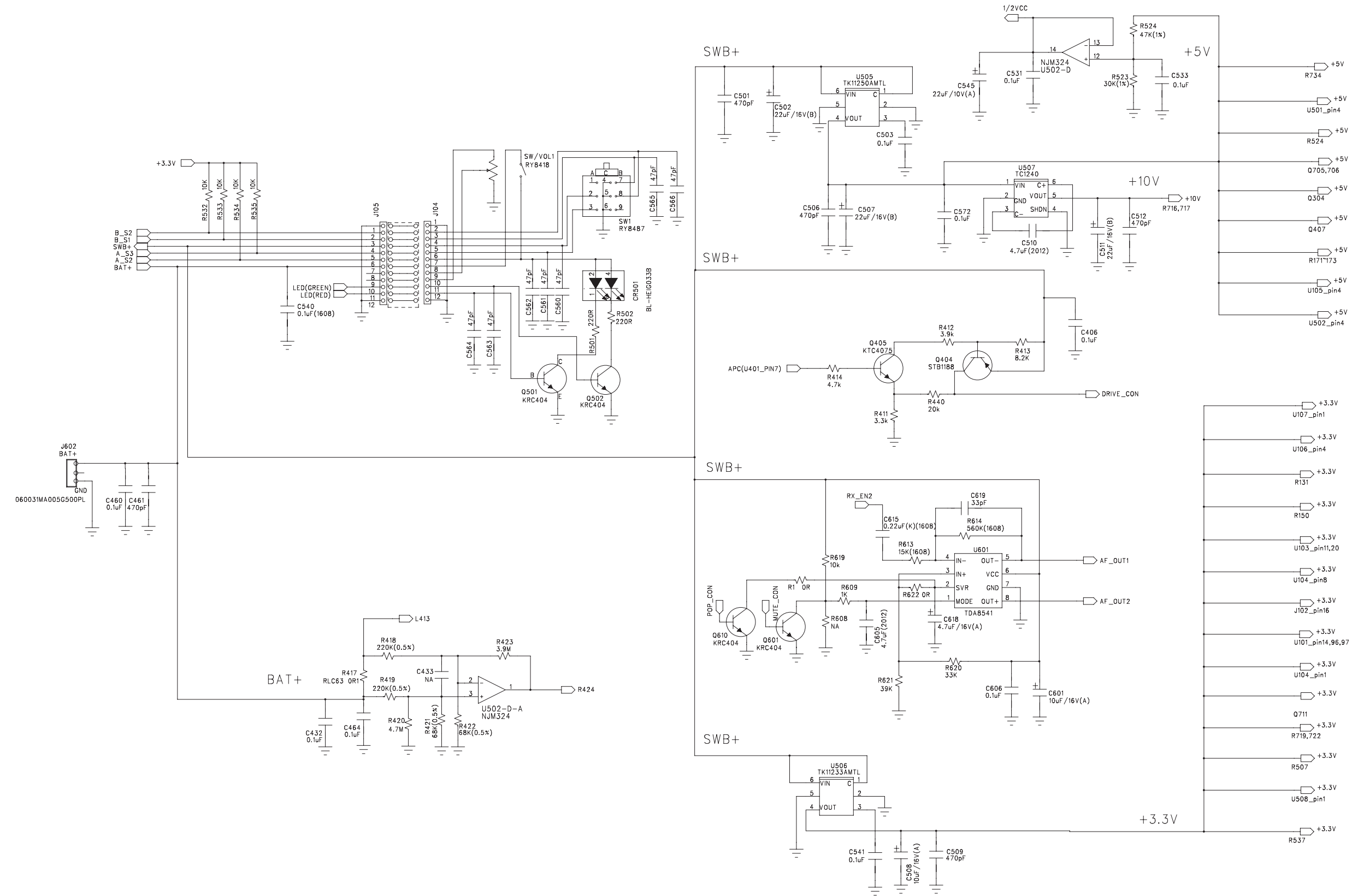


Figure 10-40. MDC/QCII R&TTE Switches and Battery Schematic Diagram

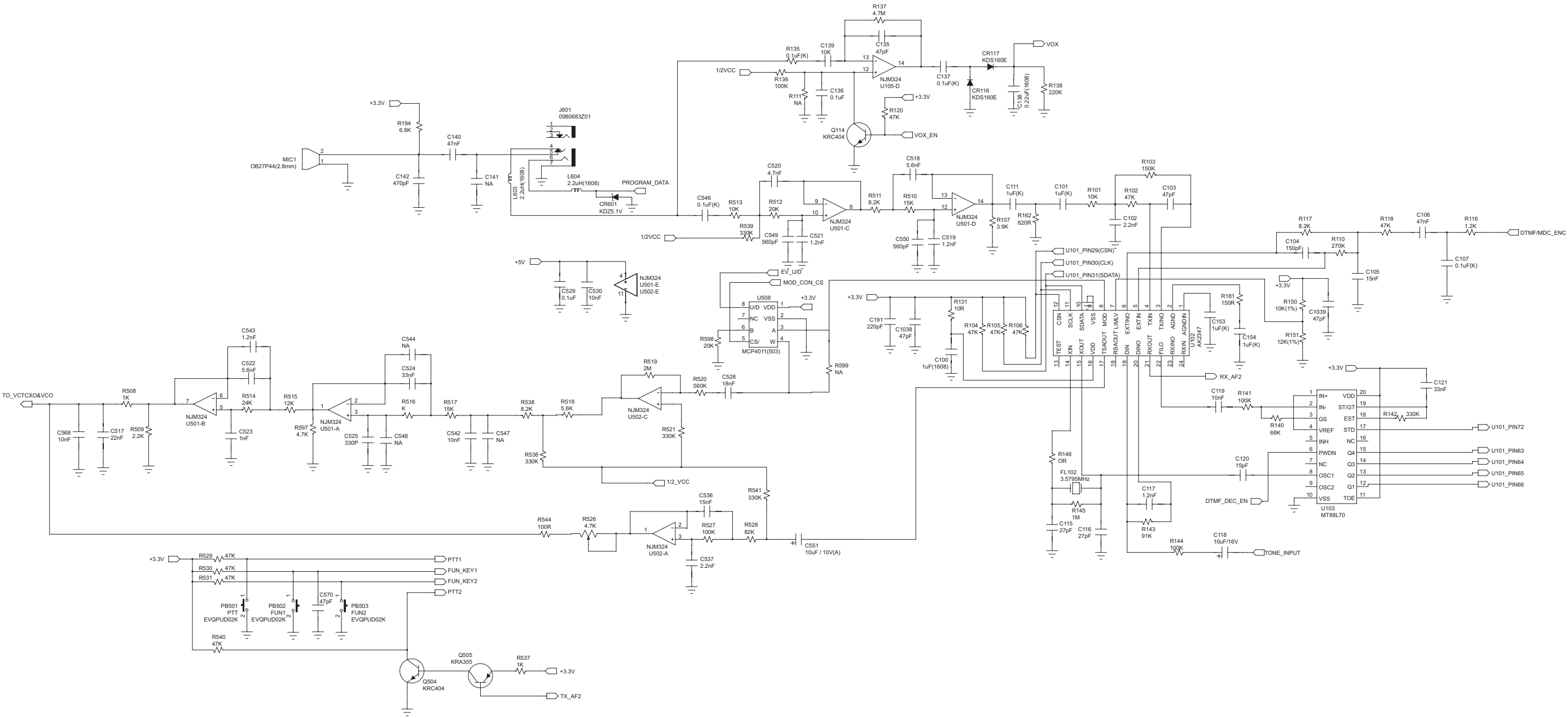


Figure 10-41. MDC/QCII R&TTE Transmitter Audio Filter and Sub-tone Schematic Diagram

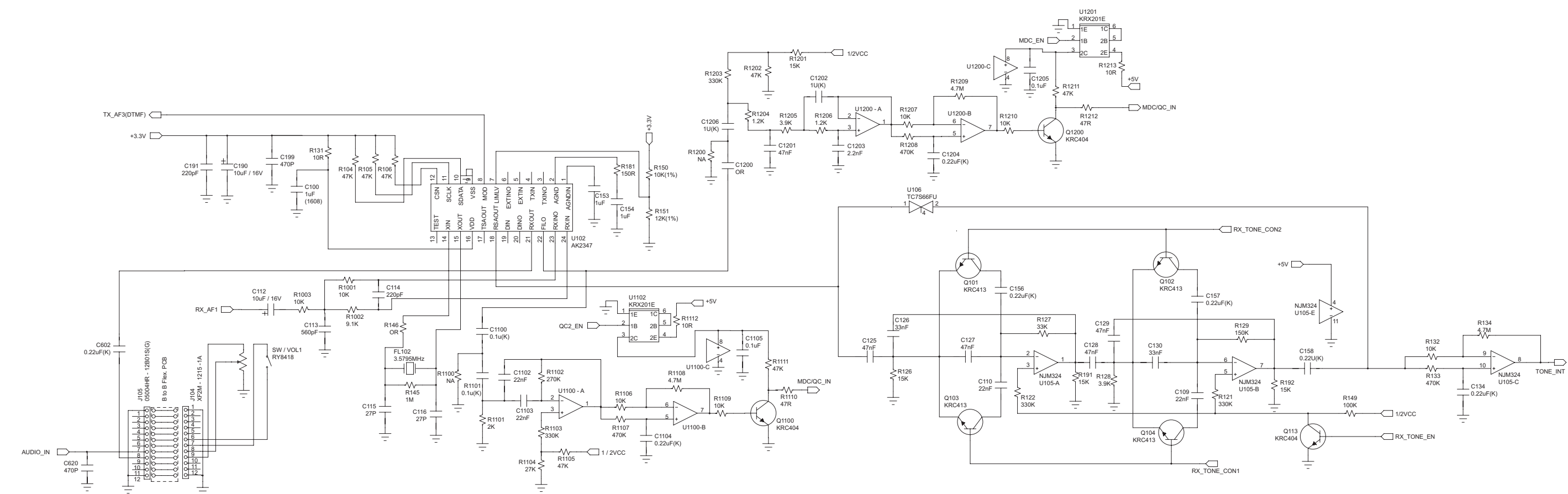


Figure 10-42. MDC/QCII R&TTE Receiver Audio Filter and Sub-tone Schematic Diagram

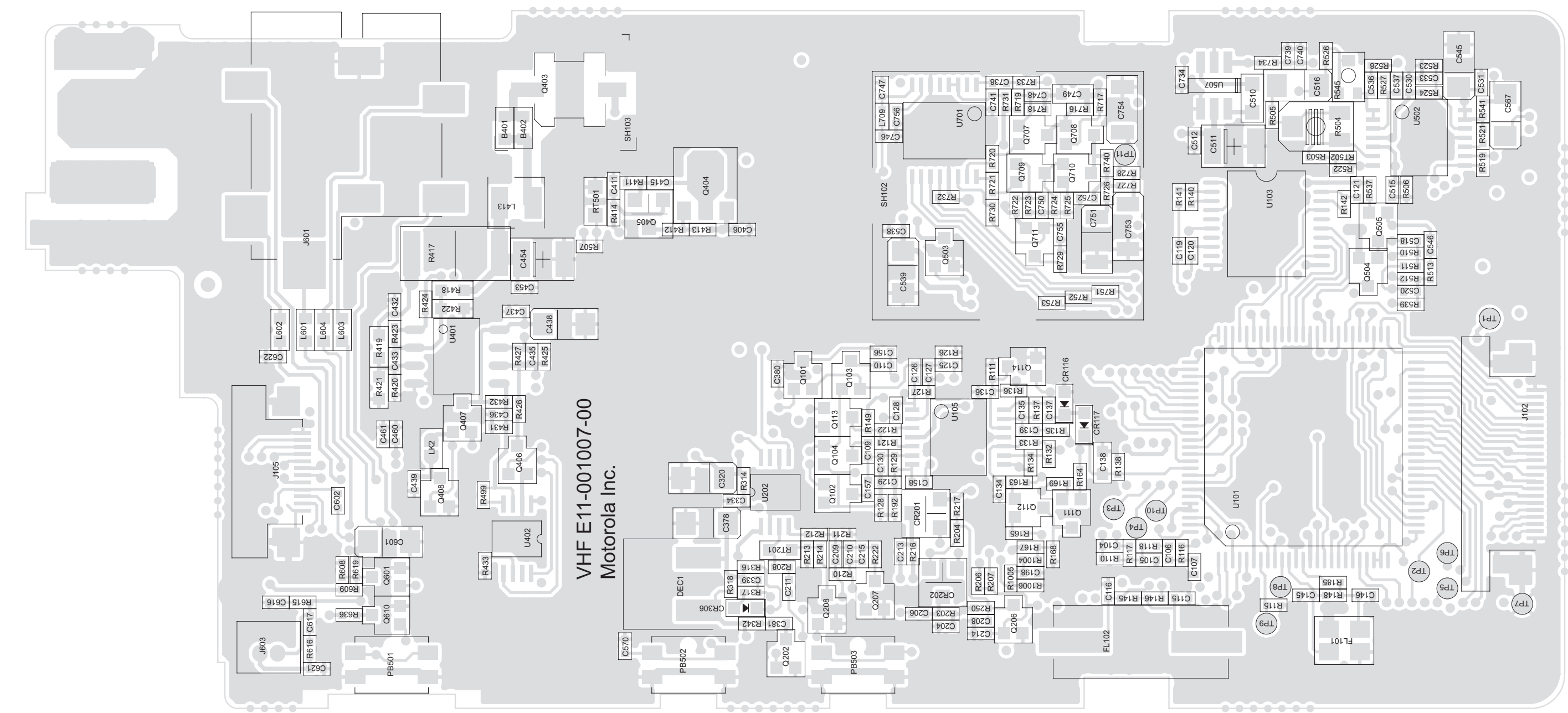


Figure 10-43. VHF MDC/QCII R&TTE (136–174 MHz) Mainboard Top Side: PCB No. E11-001007-00

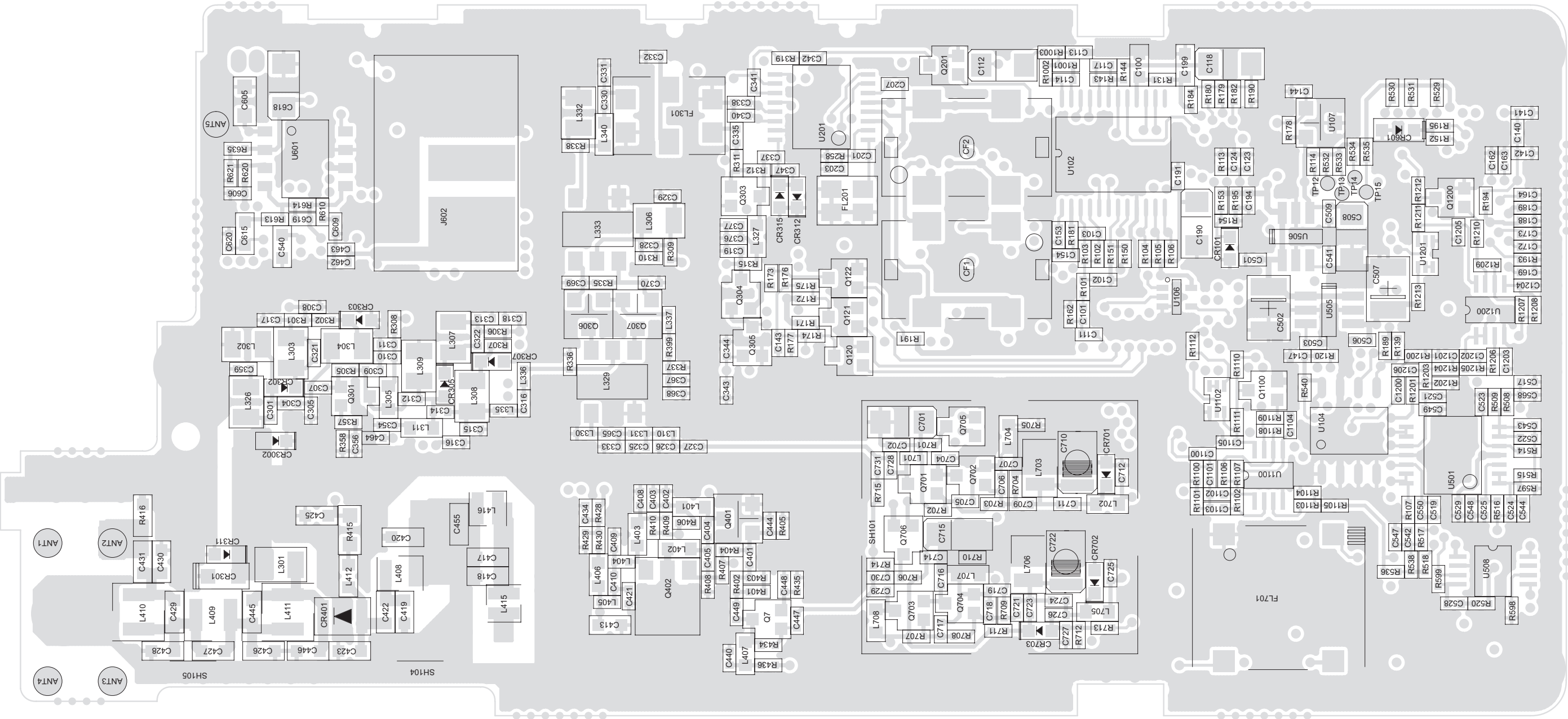


Figure 10-44. VHF MDC/QCII R&TTE (136–174 MHz) Mainboard BottomSide: PCB No. E11-001007-00

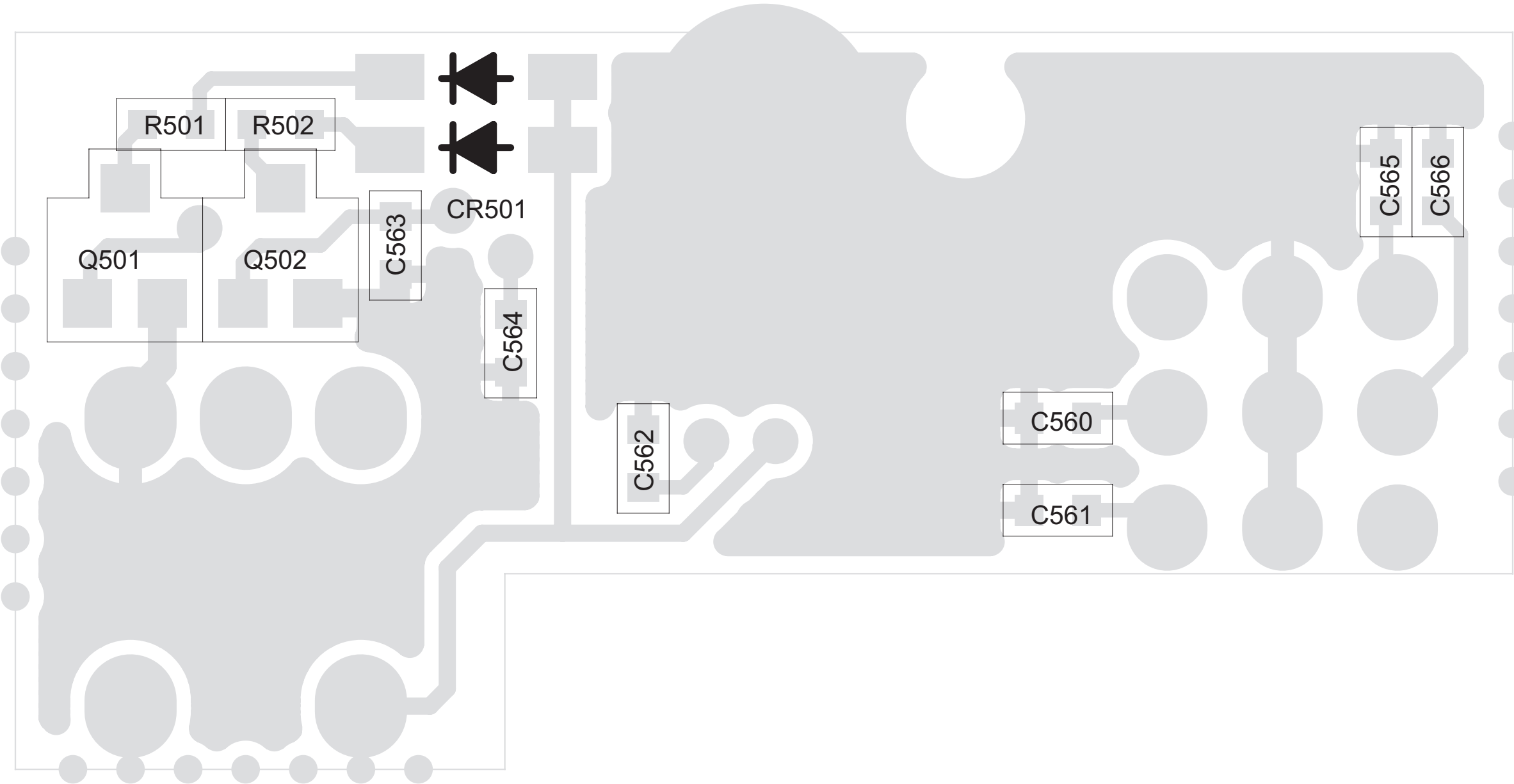


Figure 10-45. VHF (136–174 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

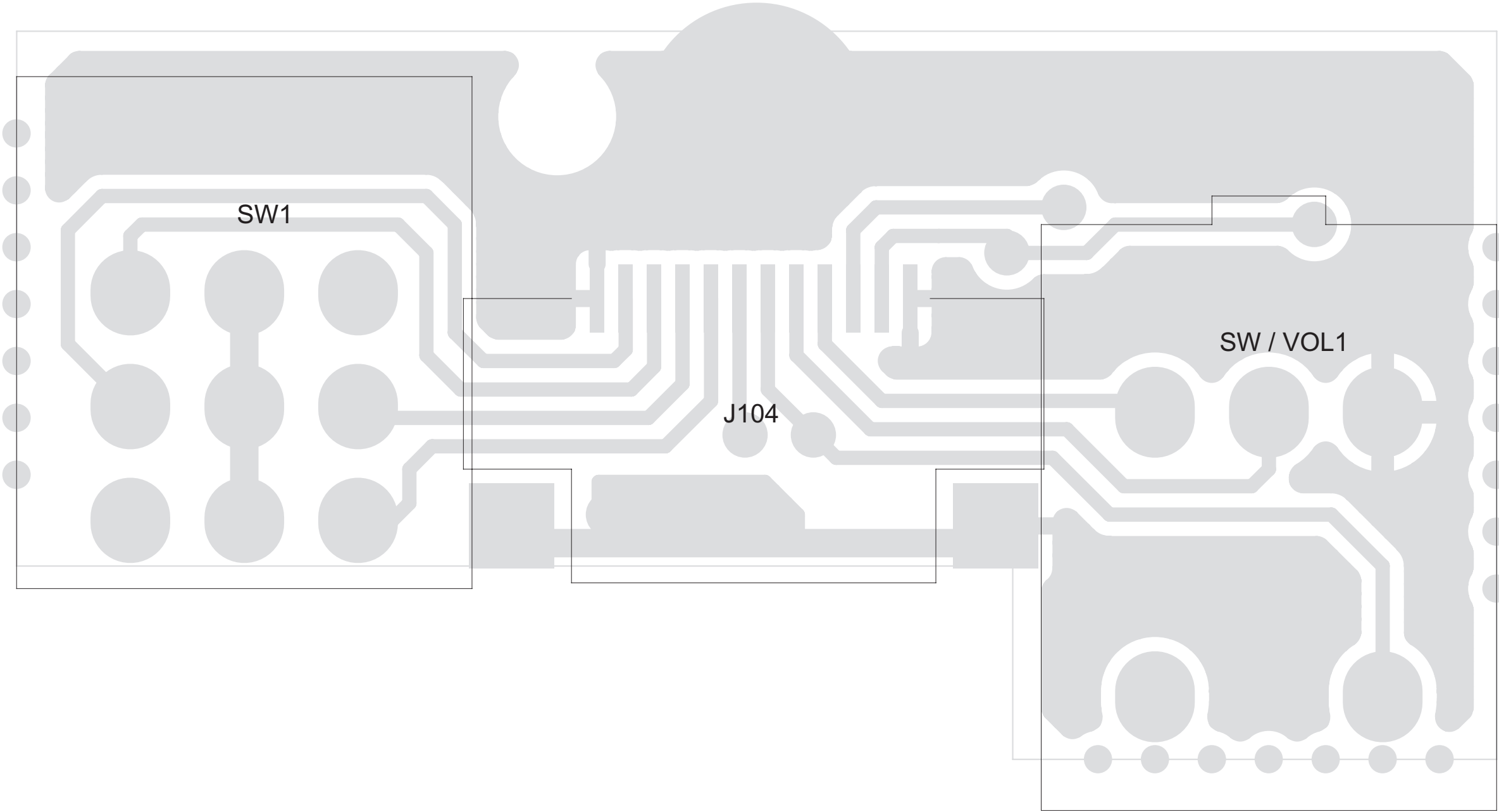


Figure 10-46. VHF (136–174 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

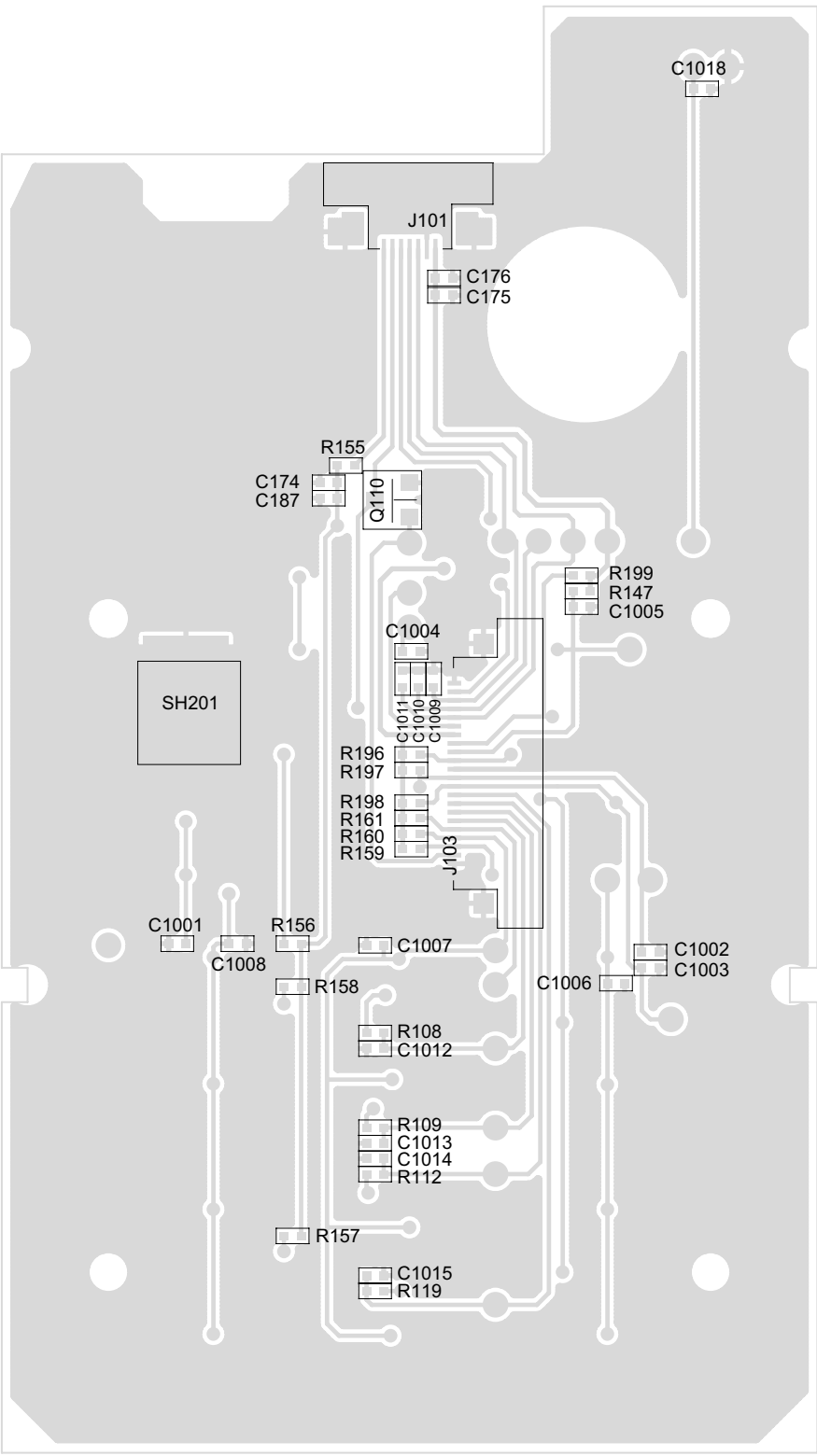
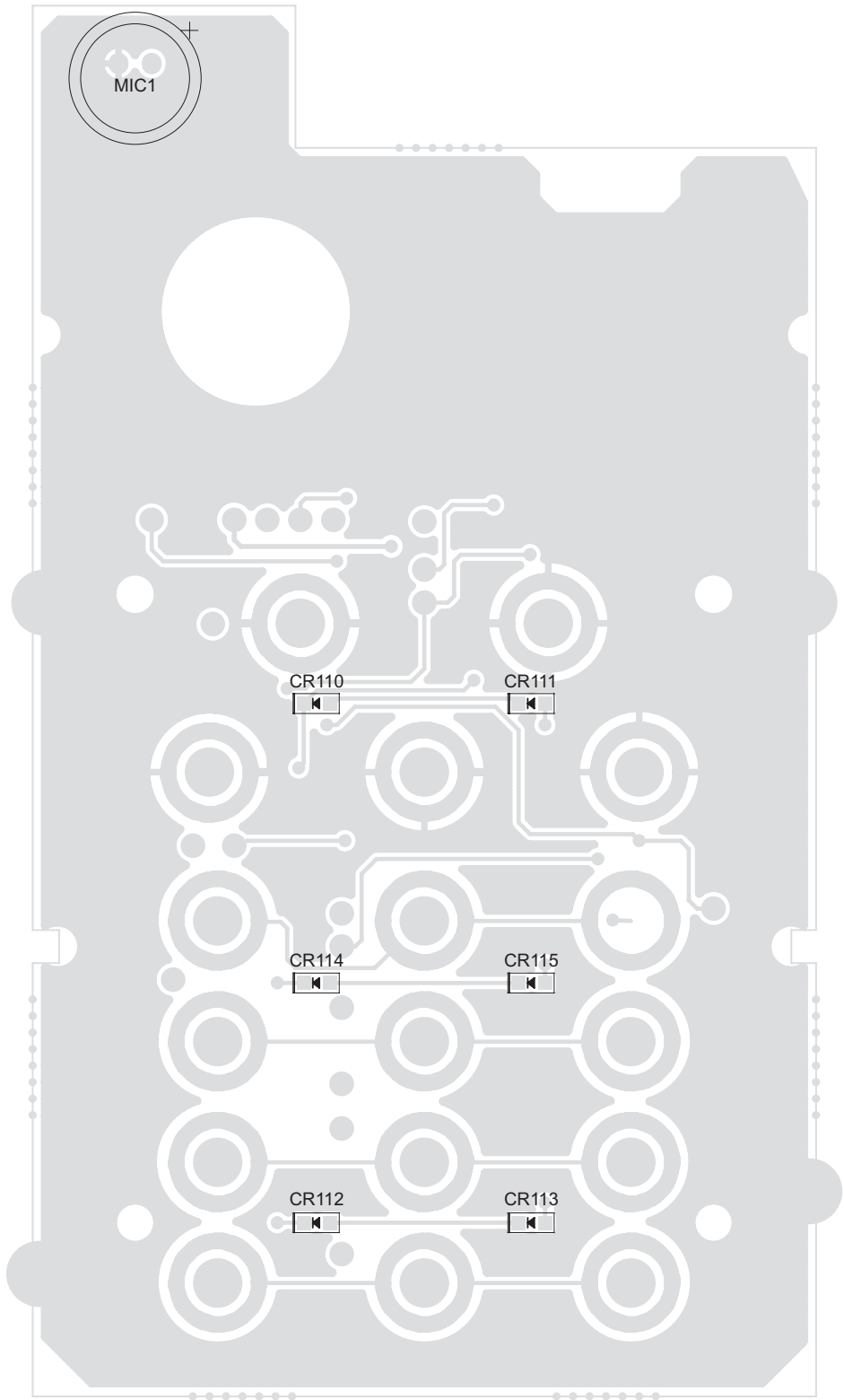


Figure 10-47. VHF (136–174 MHz) Keypad Board: PCB No. E11-000886-00

10.5.1 Parts List VHFMDC/QCII R&TTE (136–174 MHz)

Circuit Ref.	Supplier	Supplier Part No.	Description
B401	TDK	E03-000319-00	CHIP FERRITE BEADS, 100 ohm,1608
B402	TDK	E03-000319-00	CHIP FERRITE BEADS, 100 ohm,1608
C100	TDK	E02-000076-00	Chip Cap. 1608 Z 105PF
C101	TDK	E02-000070-00	Chip Cap. 1005 K 105PF
C102	TDK	E02-000159-00	Chip Cap. 1005 K 2200PF
C103	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C104	TDK	E02-000111-00	Chip Cap. 1005 J 150PF
C105	TDK	E02-000118-00	Chip Cap. 1005 K 153PF
C106	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C107	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C109	TDK	E02-000162-00	Chip Cap. 1005 K 223PF
C110	TDK	E02-000162-00	Chip Cap. 1005 K 223PF
C111	TDK	E02-000070-00	Chip Cap. 1005 K 105PF
C112	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C113	TDK	E02-000277-00	Chip Cap. 1005 K 560PF
C114	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C115	TDK	E02-000180-00	Chip Cap. 1005 J 27PF
C116	TDK	E02-000180-00	Chip Cap. 1005 J 27PF
C117	TDK	E02-000558-00	Chip Cap. 1005 K 122PF
C118	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C119	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C120	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C121	TDK	E02-000216-00	Chip Cap. 1005 K 333PF
C123	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C124	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C125	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C126	TDK	E02-000216-00	Chip Cap. 1005 K 333PF
C127	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C128	TDK	E02-000250-00	Chip Cap. 1005 K 473PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C129	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C130	TDK	E02-000216-00	Chip Cap. 1005 K 333PF
C134	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C135	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C136	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C137	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C138	TDK	E02-000166-00	Chip Cap. 1608 K 224PF
C139	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
C140	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C142	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C143	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C144	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C145	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C146	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C147	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C153	TDK	E02-000070-00	Chip Cap. 1005 K 105PF
C154	TDK	E02-000070-00	Chip Cap. 1005 K 105PF
C156	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C157	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C158	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C161	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C162	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C163	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C164	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C165	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C165	TDK	E02-000166-00	Chip Cap. 1608 K 224PF
C166	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C167	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C168	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C169	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C170	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C171	TDK	E02-000153-00	Chip Cap. 1005 J 220PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C172	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C173	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C174 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C177	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C178	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C179	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C187 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C189	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C190	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C191	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C194	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C195	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C199	TDK	E02-000706-00	Chip Cap. 1608 K 470PF
C201	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C203	TDK	E02-000097-00	Chip Cap. 1005 J 120PF
C204	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C206	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C207	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C208	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C209	TDK	E02-000277-00	Chip Cap. 1005 K 560PF
C210	TDK	E02-000277-00	Chip Cap. 1005 K 560PF
C211	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C213	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C214	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C215	TDK	E02-000947-00	Chip Cap. 1005 J 390PF
C301	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C304	TDK	E02-000142-00	Chip Cap. 1005 J 20PF
C305	TDK	E02-000492-00	Chip Cap. 1005 D 10PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C307	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C308	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C310	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C311	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C312	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C313	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C314	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C315	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C316	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C317	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C318	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C319	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C320	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C325	TDK	E02-000222-00	Chip Cap. 1005 J 39PF
C326	TDK	E02-000093-00	Chip Cap. 1005 J 12PF
C327	TAI- YOYUDEN	E03-000074-00	Chip Ind. 1005 J 10N
C328	TDK	E02-000464-00	Chip Cap. 1005 D 6 PF
C329	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C330	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C331	TDK	E02-000009-00	Chip Cap. 1005 C 3PF
C332	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C333	TDK	E02-000180-00	Chip Cap. 1005 J 27PF
C334	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C335	TDK	E02-000142-00	Chip Cap. 1005 J 20PF
C337	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C338	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C339	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C340	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C341	TDK	E02-000752-00	Chip Cap. 1005 J 82PF
C342	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C343	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C344	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C347	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C354	TDK	E02-000481-00	Chip Cap. 1005 D 9PF
C356	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C359	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C365	TAI- YOYUDEN	E03-000132-01	Chip Ind. 1005 J 47N
C367	TDK	E02-000153-00	Chip Cap. 1005 J 220PF
C368	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C376	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C378	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C380	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C381	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C401	TDK	E02-000457-00	Chip Cap. 1005 C 5PF
C404	TDK	E02-000108-00	Chip Cap. 1005 J 15PF
C405	TDK	E02-000142-00	Chip Cap. 1005 J 20PF
C406	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C409	TDK	E02-000475-00	Chip Cap. 1005 D 8PF
C410	TDK	E02-000273-00	Chip Cap. 1005 J 56PF
C413	TDK	E02-000198-00	Chip Cap. 1608 J 30PF
C415	KAMAYA	E01-000157-00	Chip Res. 1005 J 20KΩ
C416	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C417	TDK	E02-000565-00	Chip Cap. 1608 J 15PF
C418	TDK	E02-000731-00	Chip Cap. 1608 J 56PF
C419	TDK	E02-000127-00	Chip Cap. 1608 J 18PF
C420	TDK	E02-000015-00	Chip Cap. 1608 C 5PF
C421	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C422	TDK	E02-000187-00	Chip Cap. 1608 J 270PF
C425	TDK	E02-000513-00	Chip Cap. 1608 K 102PF
C426	TDK	E02-000643-00	Chip Cap. 1608 J 27PF
C427	TDK	E02-000094-00	Chip Cap. 1608 J 12PF
C428	TDK	E02-000603-00	Chip Cap. 1608 J 22PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C429	TDK	E02-000031-00	Chip Cap. 1608 D 10PF
C430	TDK	E02-000094-00	Chip Cap. 1608 J 12PF
C431	TDK	E02-000042-00	Chip Cap. 1608 J 1000PF
C432	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C434	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C435	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C436	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C437	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C439	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C440	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C445	TDK	E02-000025-00	Chip Cap. 1608 D 9PF
C446	TDK	E02-000603-00	Chip Cap. 1608 J 22PF
C447	TDK	E02-000457-00	Chip Cap. 1005 C 5PF
C448	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C449	TDK	E02-000457-00	Chip Cap. 1005 C 5PF
C453	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C454	AVX	E02-000386-00	Chip Tantal. 22uF-M/16V(B)
C455	TDK	E02-000094-00	Chip Cap. 1608 J 12PF
C460	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C461	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C462.	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C463	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C464	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C501	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C502	AVX	E02-000386-00	Chip Tantal. 22uF-M/16V(B)
C503	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C506	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C507	AVX	E02-000386-00	Chip Tantal. 22uF-M/16V(B)
C508	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C509	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C510	TDK	E02-000262-00	Chip Cap. 2012 Z 475PF
C511	AVX	E02-000386-00	Chip Tantal. 22uF-M/16V(B)

Circuit Ref.	Supplier	Supplier Part No.	Description
C512	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C515	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C516	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C517	TDK	E02-000162-00	Chip Cap. 1005 K 223PF
C518	TDK	E02-000279-00	Chip Cap. 1005 K 562PF
C519	TDK	E02-000558-00	Chip Cap. 1005 K 122PF
C520	TDK	E02-000247-00	Chip Cap. 1005 K 472PF
C521	TDK	E02-000558-00	Chip Cap. 1005 K 122PF
C522	TDK	E02-000279-00	Chip Cap. 1005 K 562PF
C523	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C524	TDK	E02-000216-00	Chip Cap. 1005 K 333PF
C525	TDK	E02-000211-00	Chip Cap. 1005 K 330PF
C528	TDK	E02-000134-00	Chip Cap. 1005 K 183PF
C529	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C530	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C531	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C533	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C536	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C537	TDK	E02-000159-00	Chip Cap. 1005 K 2200PF
C538	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C539	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C540	TDK	E02-000529-00	Chip Cap. 1608 Z 104PF
C541	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C542	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C543	TDK	E02-000558-00	Chip Cap. 1005 K 122PF
C545	AVX	E02-000383-00	Chip Tantal. 22uF-M/10V(A)
C546	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C549	TDK	E02-000277-00	Chip Cap. 1005 K 560PF
C550	TDK	E02-000277-00	Chip Cap. 1005 K 560PF
C560 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C561 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C562 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C563 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C566 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C567	AVX	E02-000824-00	Chip Tantal. 10uF-M/10V(A)
C568	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
C570	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C601	AVX	E02-000829-00	Chip Tantal. 10uF-M/16V(A)
C602	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C605	TDK	E02-000262-00	Chip Cap. 2012 Z 475PF
C606	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C609	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C616	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C617	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C618	AVX	E02-000857-00	Chip Tantal. 4.7uF-M/16V(A)
C619	TDK	E02-000201-00	Chip Cap. 1005 J 33PF
C620	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C621	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C622	TDK	E02-000233-00	Chip Cap. 1005 J 47PF
C701	AVX	E02-000383-00	Chip Tantal. 22uF-M/10V(A)
C702	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C704	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C705	TDK	E02-000464-00	Chip Cap. 1005 D 6 PF
C706	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C707	TDK	E02-000180-00	Chip Cap. 1005 J 27PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C709	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C710	MURATA	E02-000871-00	Chip Trimmer Cap. 2PIE 10PF
C711	TDK	E02-000201-00	Chip Cap. 1005 J 33PF
C712	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C714	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C715	AVX	E02-000383-00	Chip Tantal. 22uF-M/10V(A)
C716	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C717	TDK	E02-000093-00	Chip Cap. 1005 J 12PF
C718	TDK	E02-000093-00	Chip Cap. 1005 J 12PF
C719	TDK	E02-000180-00	Chip Cap. 1005 J 27PF
C721	TDK	E02-000093-00	Chip Cap. 1005 J 12PF
C722	MURATA	E02-000871-00	Chip Trimmer Cap. 2PIE 10PF
C723	TDK	E02-000009-00	Chip Cap. 1005 C 3PF
C724	TDK	E02-000273-00	Chip Cap. 1005 J 56PF
C725	TDK	E02-000243-00	Chip Cap. 1005 K 470PF
C726	TDK	E02-000464-00	Chip Cap. 1005 D 6 PF
C727	TDK	E02-000009-00	Chip Cap. 1005 C 3PF
C728	TDK	E02-000492-00	Chip Cap. 1005 D 10PF
C729	TDK	E02-000009-00	Chip Cap. 1005 C 3PF
C730	TDK	E02-000454-00	Chip Cap. 1005 C 4PF
C731	TDK	E02-000454-00	Chip Cap. 1005 C 4PF
C738	TDK	E02-000019-00	Chip Cap. 1005 D 7PF
C739	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C740	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C741	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C746	TDK	E02-000142-00	Chip Cap. 1005 J 20PF
C747	TDK	E02-000201-00	Chip Cap. 1005 J 33PF
C748	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C749	TDK	E02-000076-00	Chip Cap. 1608 Z 105PF
C750	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C751	AVX	E02-000820-00	Chip Tantal. 1uF-M/35V(A)
C752	TDK	E02-000057-00	Chip Cap. 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C753	PANASONIC	E02-000322-00	Chip Cap. 3216 J 473PF
C754	PANASONIC	E02-000322-00	Chip Cap. 3216 J 473PF
C755	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C756	TDK	E02-000040-00	Chip Cap. 1005 K 1000PF
C1001 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1002 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1003 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1004 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1005 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1006 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1007 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1015 ^{1, 2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1018 ^{1, 2,3}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C1100	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C1101	TDK	E02-000250-00	Chip Cap. 1005 K 473PF
C1102	TDK	E02-000162-00	Chip Cap. 1005 K 223PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1103	TDK	E02-000162-00	Chip Cap. 1005 K 223PF
C1104	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C1105	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C1200	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C1201	TDK	E02-000134-00	Chip Cap. 1005 K 183PF
C1202	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
C1203	TDK	E02-000558-00	Chip Cap. 1005 K 122PF
C1204	TDK	E02-000622-00	Chip Cap. 1005 K 224PF
C1205	TDK	E02-000056-00	Chip Cap. 1005 Z 104PF
C1206	TDK	E02-000070-00	Chip Cap. 1005 K 105PF
CF1	BGTech	E17-000057-00	CQ, Ceramic Filter, LTWC455F
CF2	BGTech	E17-000058-00	CQ, Ceramic Filter, LTWC455H
CR30	KEC	E06-000004-00	KDS160E , SWITCH DIODE
CR110 ^{1, 2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR111 ^{1, 2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR112 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR113 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR114 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR115 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR116	KEC	E06-000004-00	KDS160E , SWITCH DIODE
CR117	KEC	E06-000004-00	KDS160E , SWITCH DIODE
CR201	KEC	E06-000005-00	KDS181 , SWITCH DIODE
CR202	KEC	E06-000005-00	KDS181 , SWITCH DIODE
CR301	PANASONIC	E06-000022-00	MA2S07700L , SWITCH DIODE
CR302	KEC	E06-000071-00	KDV269E , VARIABLE DIODE
CR303	KEC	E06-000071-00	KDV269E , VARIABLE DIODE
CR305	KEC	E06-000071-00	KDV269E , VARIABLE DIODE

Circuit Ref.	Supplier	Supplier Part No.	Description
CR307	KEC	E06-000071-00	KDV269E , VARIABLE DIODE
CR312	KEC	E06-000004-00	KDS160E , SWITCH DIODE
CR315	KEC	E06-000004-00	KDS160E , SWITCH DIODE
CR401	M/A COM	E06-000025-00	MA4P7001F-1072T , PIN DIODE
CR501 ^{1, 2,3}	BRIGHT LED	E07-0041-0	LED DIODE, BL-HEIG033B-TR
CR601	KEC	E06-000031-00	KDZ5.1V , ZENER DIODE
CR701	KEC	E06-000072-00	KDV300E , VARIABLE DIODE
CR702	KEC	E06-000072-00	KDV300E , VARIABLE DIODE
CR703	KEC	E06-000072-00	KDV300E , VARIABLE DIODE
DEC1	CQ	E17-000069-00	JTBC455CX24
F- CABLE1	BGTech	E15-000042-00	SNAGGWA, BEACON FLAT CABLE, FF12-22N080XXA
F- CABLE2	BGTech	E15-000174-00	SNAGGWA, , BEACON FLAT CABLE, FF12-12N040XXA
FL101	BGTech	E08-000135-00	SHINSUNG Crystal 14.7456Mhz(SMD3225)
FL102	BGTech	E08-000036-00	SHINSUNG, Crystal, 3.5795MHz (H : 2.8mm)
FL201	BGTech	E08-000043-00	SHINSUNG, Crystal, 44.645MHz (SMD)
FL301	BGTech	E17-000026-00	SHINSUNG, Crystal Filter, MCF 45.15S12.B (8.5KHz)
FL701	BGTech	E08-000055-00	SHINSUNG, VCTCXO, 12.8 MHZ
J101 ^{1,2}	BGTech	E10-0167-0	YUNHO, FPC CONNECTOR, 05004HR-07C01S(G)
J102	BGTech	E10-000173-00	YUNHO, FPC CONNECTOR, 05004HR-22A01S
J103 ^{1,2,3}	BGTech	E10-0171-0	KYOCERA, FPC CONNEC-TOR, 04-6292-022-000-800+
J104 ^{1,2,3}	BGTech	E10-0169-0	OMIRON, FPC CONNEC-TOR, XF2M-1215-1A
J105	BGTech	E10-000428-00	MOLEX, FPC CONNECTOR, 52745-1297
J601	BGTech	E10-000014-00	CHI CHENG, SPK MIC JACK, 0980683Z01-D

Circuit Ref.	Supplier	Supplier Part No.	Description
J602	BGTech	E10-000081-00	SUYIN, BATTERY CONNEC-TOR, 060031MA005G500PL
J603	BGTech	E10-000099-00	MOLEX, CONNECTOR, 53047-0210
L301	TAI-YOYUDEN	E03-000157-00	Chip Ind. 2520 K 68N
L302	DELTA ELECTRON-ICS, INC	E03-000381-00	Chip Ind. 2012 27NH G (Toler-ance 2%)
L303	DELTA ELECTRON-ICS, INC	E03-000375-00	Chip Ind. 2012 12NH G (Toler-ance 2%)
L304	DELTA ELECTRON-ICS, INC	E03-000383-00	Chip Ind. 2012 68NH G (Toler-ance 2%)
L305	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L306	DELTA ELECTRON-ICS, INC	E03-000388-00	Chip Ind. 2012 820NH G (Tol-erance 2%)
L307	DELTA ELECTRON-ICS, INC	E03-000375-00	Chip Ind. 2012 12NH G (Toler-ance 2%)
L308	DELTA ELECTRON-ICS, INC	E03-000383-00	Chip Ind. 2012 68NH G (Toler-ance 2%)
L309	DELTA ELECTRON-ICS, INC	E03-000378-00	Chip Ind. 2012 22NH G (Toler-ance 2%)
L310	TAI-YOYUDEN	E03-000132-01	Chip Ind. 1005 J 47N
L311	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L326	DELTA ELECTRON-ICS, INC	E03-000379-00	Chip Ind. 2012 220NH G (Tol-erance 2%)
L327	TAI-YOYUDEN	E03-000177-00	Chip Ind. 1608 K 820NH
L329	TOKO	E03-000185-00	TOKO, #617PT-1667
L330	TAI-YOYUDEN	E03-000160-01	Chip Ind. 1005 J 82N

Circuit Ref.	Supplier	Supplier Part No.	Description
L331	TAI-YOYUDEN	E03-000132-01	Chip Ind. 1005 J 47N
L332	DELTA ELECTRON-ICS, INC	E03-000388-00	Chip Ind. 2012 820NH G (Tol-erance 2%)
L333	TOKO	E03-000184-00	TOKO, #617PT-1664
L335	TAI-YOYUDEN	E03-000112-00	Chip Ind. 1005 J 27N
L336	TAI-YOYUDEN	E03-000112-00	Chip Ind. 1005 J 27N
L337	TAI-YOYUDEN	E03-000107-00	Chip Ind. 1005 J 22N
L340	TAI-YOYUDEN	E03-000177-00	Chip Ind. 1608 K 820NH
L401	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L403	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L404	TAI-YOYUDEN	E03-000107-00	Chip Ind. 1005 J 22N
L405	TAI-YOYUDEN	E03-000107-00	Chip Ind. 1005 J 22N
L406	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L407	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L408	DAELIM	E03-000034-00	Coil Air. 0.28-1.1-6TL
L409	DAELIM	E03-000053-00	Coil Air. 0.35-1.6-6TL
L410	DAELIM	E03-000053-00	Coil Air. 0.35-1.6-6TL
L411	DAELIM	E03-000053-00	Coil Air. 0.35-1.6-6TL
L412	TAI-YOYUDEN	E03-000097-00	Chip Ind. 1608 K 1uH
L413	DAELIM	E03-000051-00	Coil Air. 0.35-1.6-7TL
L415	DAELIM	E03-000062-00	Coil Air. 0.45-1.4-3TL
L416	DAELIM	E03-000062-00	Coil Air. 0.45-1.4-3TL
L601	TAI-YOYUDEN	E03-000116-00	Chip Ind. 1608 K 2.2uH
L602	TAI-YOYUDEN	E03-000116-00	Chip Ind. 1608 K 2.2uH

Circuit Ref.	Supplier	Supplier Part No.	Description
L603	TAI-YOYUDEN	E03-000116-00	Chip Ind. 1608 K 2.2uH
L604	TAI-YOYUDEN	E03-000116-00	Chip Ind. 1608 K 2.2uH
L701	TAI-YOYUDEN	E03-000165-01	Chip Ind. 1005 J 100nH
L702	TAI-YOYUDEN	E03-000116-00	Chip Ind. 1608 K 2.2uH
L703	DAELIM	E03-000034-00	Coil Air. 0.28-1.1-6TL
L704	TAI-YOYUDEN	E03-000097-00	Chip Ind. 1608 K 1uH
L705	TAI-YOYUDEN	E03-000296-00	Chip Ind. 1608 K 2.7uH
L706	DAELIM	E03-000010-00	Coil Air. 0.3-1.4-6TL
L707	TAI-YOYUDEN	E03-000097-00	Chip Ind. 1608 K 1uH
L708	TAI-YOYUDEN	E03-000170-00	Chip Ind. 1608 220nH J
L709	TAI-YOYUDEN	E03-000132-01	Chip Ind. 1005 J 47N
LCD101 1,2	BGTech	E20-000092-00	EVERVIEW,VBS3208A2-7FWLYA,REV4.0
MIC1 ^{1,2,3}	BGTech	E19-0009-0	BSE, C-MIC, 6.0*2.7/2.2KΩ,2V,-44±3dB, Pin type
PB501	BGTech	E09-000030-00	PANASONIC, Tack Switch, EVQPUD02K
PB502	BGTech	E09-000030-00	PANASONIC, Tack Switch, EVQPUD02K
PB503	BGTech	E09-000030-00	PANASONIC, Tack Switch, EVQPUD02K
Q101	KEC	E05-000061-00	KRC413 , BJT NPN Transistor
Q102	KEC	E05-000061-00	KRC413 , BJT NPN Transistor
Q103	KEC	E05-000061-00	KRC413 , BJT NPN Transistor
Q104	KEC	E05-000061-00	KRC413 , BJT NPN Transistor
Q110 ^{1,2}	KEC	E05-0015-0	KRC 404 BJT NPN Transistor
Q111	KEC	E05-000043-00	KTA 2014(Y) , BJT NPN Tran-sistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q112	KEC	E05-000043-00	KTA 2014(Y) , BJT NPN Tran-sistor
Q113	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q114	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q120	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q121	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q122	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q201	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q202	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q206	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q207	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q208	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q301	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q303	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q304	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
Q305	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q306	BGTech	E05-000084-00	2SK711 TOSHIBA FET N-Channel Transistor
Q307	BGTech	E05-000084-00	2SK711 TOSHIBA FET N-Channel Transistor
Q401	BGTech	E05-000038-00	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-000072-00	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-000074-00	2SK3476 TOSHIBA FET N-Channel Transistor
Q404	BGTech	E05-000062-00	STB 1188 AUK BJT NPN Tran-sistor
Q405	KEC	E05-000050-01	KTC 4075Y , BJT NPN Tran-sistor
Q406	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q407	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
Q408	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q501 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q502 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q503	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q504	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q505	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
Q601	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q610	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q700	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q701	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q702	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q703	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q704	NEC	E05-000054-00	2SC4226-T1 (R25) , BJT NPN Transistor
Q705	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
Q706	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
Q707	KEC	E05-000050-01	KTC 4075Y , BJT NPN Tran-sistor
Q708	KEC	E05-000043-00	KTA 2014(Y) , BJT NPN Tran-sistor
Q709	KEC	E05-000043-00	KTA 2014(Y) , BJT NPN Tran-sistor
Q710	KEC	E05-000050-01	KTC 4075Y , BJT NPN Tran-sistor
Q711	KEC	E05-000027-00	KRA304 , BJT PNP Transistor
Q1100	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q1101	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
Q1200	KEC	E05-000032-00	KRC 404 , BJT NPN Transistor
Q1201	KEC	E05-000028-00	KRA 305 , BJT PNP Transistor
R101	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R102	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R103	KAMAYA	E01-000119-00	Chip Res. 1005 J 150KΩ
R104	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R105	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R106	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R107	KAMAYA	E01-000263-01	Chip Res. 1005 J 3.9KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R110	KAMAYA	E01-000209-00	Chip Res. 1005 J 270KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R113	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R114	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R115	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R116	KAMAYA	E01-000081-00	Chip Res. 1005 J 1.2KΩ
R117	KAMAYA	E01-000386-00	Chip Res. 1005 J 8.2KΩ
R118	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R120	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R121	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R122	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R126	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R127	KAMAYA	E01-000242-00	Chip Res. 1005 J 33KΩ
R128	KAMAYA	E01-000263-01	Chip Res. 1005 J 3.9KΩ
R129	KAMAYA	E01-000119-00	Chip Res. 1005 J 150KΩ
R131	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R132	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R133	KAMAYA	E01-000298-00	Chip Res. 1005 J 470KΩ
R134	KAMAYA	E01-000301-00	Chip Res. 1005 J 4.7MΩ
R135	TDK	E02-000057-00	Chip Cap. 1005 K 104PF
R136	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R137	KAMAYA	E01-000301-00	Chip Res. 1005 J 4.7MΩ
R138	KAMAYA	E01-000184-00	Chip Res. 1005 J 220KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R139	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R140	KAMAYA	E01-000358-00	Chip Res. 1005 J 68KΩ
R141	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R142	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R143	KAMAYA	E01-000401-00	Chip Res. 1005 J 91KΩ
R144	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R145	KAMAYA	E01-000069-00	Chip Res. 1005 J 1MΩ
R146	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R147 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R148	KAMAYA	E01-000069-00	Chip Res. 1005 J 1MΩ
R149	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R150	KAMAYA	E01-000053-00	Chip Res. 1005 F 10KΩ
R151	KAMAYA	E01-000083-00	Chip Res. 1005 F 12KΩ
R152	KAMAYA	E01-000347-00	Chip Res. 1005 J 680Ω
R153	KAMAYA	E01-000357-00	Chip Res. 1005 F 68KΩ
R154	KAMAYA	E01-000294-00	Chip Res. 1005 F 47KΩ
R155 ^{1,2}	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R156 ^{1,2}	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R160 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-000381-00	Chip Res. 1005 J 820Ω
R163	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R164	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R165	KAMAYA	E01-000217-00	Chip Res. 1005 F 3KΩ
R167	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R168	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R169	KAMAYA	E01-000081-00	Chip Res. 1005 J 1.2KΩ
R171	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R172	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R173	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R174	KAMAYA	E01-000089-01	Chip Res. 1005 J 120KΩ
R175	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R176	KAMAYA	E01-000223-00	Chip Res. 1005 J 30KΩ
R177	KAMAYA	E01-000326-01	Chip Res. 1005 J 56KΩ
R178	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R179	KAMAYA	E01-000309-00	Chip Res. 1005 J 51KΩ
R180	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R181	KAMAYA	E01-000103-00	Chip Res. 1005 J 150Ω
R182	KAMAYA	E01-000162-00	Chip Res. 1005 J 200KΩ
R184	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R185	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R190	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R191	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R192	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R193	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R194	KAMAYA	E01-000352-00	Chip Res. 1005 J 6.8KΩ
R195	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R196 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R203	KAMAYA	E01-000178-00	Chip Res. 1005 J 22KΩ
R204	KAMAYA	E01-000218-00	Chip Res. 1005 J 3KΩ
R206	KAMAYA	E01-000218-00	Chip Res. 1005 J 3KΩ
R207	KAMAYA	E01-000323-00	Chip Res. 1005 J 5.6KΩ
R208	KAMAYA	E01-000107-00	Chip Res. 1005 J 1.5KΩ
R210	KAMAYA	E01-000089-01	Chip Res. 1005 J 120KΩ
R211	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R212	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R213	KAMAYA	E01-000289-01	Chip Res. 1005 J 4.7KΩ
R214	KAMAYA	E01-000263-01	Chip Res. 1005 J 3.9KΩ
R216	KAMAYA	E01-000289-01	Chip Res. 1005 J 4.7KΩ
R217	KAMAYA	E01-000218-00	Chip Res. 1005 J 3KΩ
R222	KAMAYA	E01-000284-01	Chip Res. 1005 J 470Ω
R250	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R258	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R301	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R302	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R305	KAMAYA	E01-000265-00	Chip Res. 1005 J 39KΩ
R306	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R307	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R308	KAMAYA	E01-000103-00	Chip Res. 1005 J 150Ω
R309	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R310	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R311	KAMAYA	E01-000317-00	Chip Res. 1005 J 560Ω
R312	KAMAYA	E01-000184-00	Chip Res. 1005 J 220KΩ
R314	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R315	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R316	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R317	KAMAYA	E01-000143-00	Chip Res. 1005 J 180KΩ
R318	KAMAYA	E01-000152-00	Chip Res. 1005 J 2KΩ
R319	KAMAYA	E01-000201-00	Chip Res. 1005 J 2.7KΩ
R336	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R337	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R338	TDK	E02-000437-00	Chip Cap. 1005 C 1PF
R342	KAMAYA	E01-000352-00	Chip Res. 1005 J 6.8KΩ
R357	KAMAYA	E01-000273-00	Chip Res. 1005 J 3.3Ω
R358	KAMAYA	E01-000986-00	Chip Res. 1005 J 1Ω
R399	KAMAYA	E01-000345-00	Chip Res. 1005 J 68Ω
R401	KAMAYA	E01-000133-01	Chip Res. 1005 J 180Ω
R402	KAMAYA	E01-000258-00	Chip Res. 1005 J 39Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R403	KAMAYA	E01-000133-01	Chip Res. 1005 J 180Ω
R404	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R405	KAMAYA	E01-000201-00	Chip Res. 1005 J 2.7KΩ
R406	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R407	KAMAYA	E01-000386-00	Chip Res. 1005 J 8.2KΩ
R408	KAMAYA	E01-000172-01	Chip Res. 1005 J 2.2KΩ
R409	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R410	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R411	KAMAYA	E01-000238-00	Chip Res. 1005 J 3.3KΩ
R412	KAMAYA	E01-000263-01	Chip Res. 1005 J 3.9KΩ
R413	KAMAYA	E01-000386-00	Chip Res. 1005 J 8.2KΩ
R414	KAMAYA	E01-000289-01	Chip Res. 1005 J 4.7KΩ
R415	KAMAYA	E01-000170-00	Chip Res. 2012 J 220Ω
R416	KAMAYA	E01-000296-00	Chip Res. 1608 J 47KΩ
R417	ROHM	E01-000035-00	Chip Res. 1W J 2512 0.1Ω
R418	VIKING	E01-001142-00	Chip Res. 1608 B 220KΩ
R419	VIKING	E01-001142-00	Chip Res. 1608 B 220KΩ
R420	KAMAYA	E01-000301-00	Chip Res. 1005 J 4.7MΩ
R421	VIKING	E01-001141-00	Chip Res. 1608 B 68KΩ
R422	VIKING	E01-001141-00	Chip Res. 1608 B 68KΩ
R423	KAMAYA	E01-000271-00	Chip Res. 1005 J 3.9MΩ
R424	KAMAYA	E01-000085-00	Chip Res. 1005 J 12KΩ
R425	KAMAYA	E01-000192-00	Chip Res. 1005 J 2.4KΩ
R426	KAMAYA	E01-000263-01	Chip Res. 1005 J 3.9KΩ
R427	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R428	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R429	KAMAYA	E01-000250-00	Chip Res. 1005 J 3.6KΩ
R430	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R431	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R432	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R433	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R434	KAMAYA	E01-000242-00	Chip Res. 1005 J 33KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R435	KAMAYA	E01-000133-01	Chip Res. 1005 J 180Ω
R436	KAMAYA	E01-000280-00	Chip Res. 1005 J 47Ω
R499	KAMAYA	E01-000107-00	Chip Res. 1005 J 1.5KΩ
R501 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R502 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R503	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R504	NOBLE	E01-000468-00	CHIP SEMI V.R 47 KΩ
R505	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R506	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R507	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R508	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R509	KAMAYA	E01-000172-01	Chip Res. 1005 J 2.2KΩ
R510	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R511	KAMAYA	E01-000386-00	Chip Res. 1005 J 8.2KΩ
R512	KAMAYA	E01-000157-00	Chip Res. 1005 J 20KΩ
R513	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R514	KAMAYA	E01-000194-00	Chip Res. 1005 J 24KΩ
R515	KAMAYA	E01-000085-00	Chip Res. 1005 J 12KΩ
R516	KAMAYA	E01-000085-00	Chip Res. 1005 J 12KΩ
R517	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R518	KAMAYA	E01-000323-00	Chip Res. 1005 J 5.6KΩ
R519	KAMAYA	E01-001098-00	Chip Res. 1005 J 2MΩ
R520	KAMAYA	E01-000330-00	Chip Res. 1005 J 560KΩ
R521	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R522	KAMAYA	E01-000223-00	Chip Res. 1005 J 30KΩ
R523	KAMAYA	E01-000221-00	Chip Res. 1005 F 30KΩ
R524	KAMAYA	E01-000294-00	Chip Res. 1005 F 47KΩ
R526	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R527	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R528	KAMAYA	E01-000389-00	Chip Res. 1005 J 82KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R529	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R530	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R531	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R532	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R533	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R534	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R535	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R536	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R537	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R538	KAMAYA	E01-000386-00	Chip Res. 1005 J 8.2KΩ
R539	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R540	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R541	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R545	NOBLE	E01-000467-00	CHIP SEMI V.R 4.7 KΩ
R597	KAMAYA	E01-000289-01	Chip Res. 1005 J 4.7KΩ
R598	KAMAYA	E01-000157-00	Chip Res. 1005 J 20KΩ
R609	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R610	KAMAYA	E01-000213-00	Chip Res. 1005 J 2.2Ω
R613	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R614	KAMAYA	E01-000330-00	Chip Res. 1005 J 560KΩ
R615	KAMAYA	E01-000213-00	Chip Res. 1005 J 2.2Ω
R616	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R619	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R620	KAMAYA	E01-000242-00	Chip Res. 1005 J 33KΩ
R621	KAMAYA	E01-000265-00	Chip Res. 1005 J 39KΩ
R635	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R636	KAMAYA	E01-000317-00	Chip Res. 1005 J 560Ω
R701	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R702	KAMAYA	E01-000217-00	Chip Res. 1005 F 3KΩ
R703	KAMAYA	E01-000053-00	Chip Res. 1005 F 10KΩ
R704	KAMAYA	E01-000053-00	Chip Res. 1005 F 10KΩ
R705	KAMAYA	E01-000133-01	Chip Res. 1005 J 180Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R706	KAMAYA	E01-000280-00	Chip Res. 1005 J 47Ω
R707	KAMAYA	E01-000288-00	Chip Res. 1005 F 4.7KΩ
R708	KAMAYA	E01-000083-00	Chip Res. 1005 F 12KΩ
R709	KAMAYA	E01-000083-00	Chip Res. 1005 F 12KΩ
R710	KAMAYA	E01-000133-01	Chip Res. 1005 J 180Ω
R711	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R712	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R713	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R714	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R715	KAMAYA	E01-000042-01	Chip Res. 1005 J 100Ω
R716	KAMAYA	E01-000347-00	Chip Res. 1005 J 680Ω
R717	KAMAYA	E01-000315-01	Chip Res. 1005 J 56Ω
R718	KAMAYA	E01-000157-00	Chip Res. 1005 J 20KΩ
R719	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R720	KAMAYA	E01-000199-00	Chip Res. 1005 J 270Ω
R721	KAMAYA	E01-000199-00	Chip Res. 1005 J 270Ω
R722	KAMAYA	E01-000178-00	Chip Res. 1005 J 22KΩ
R723	KAMAYA	E01-000081-00	Chip Res. 1005 J 1.2KΩ
R724	KAMAYA	E01-000381-00	Chip Res. 1005 J 820Ω
R725	KAMAYA	E01-000168-01	Chip Res. 1005 J 220Ω
R726	KAMAYA	E01-000192-00	Chip Res. 1005 J 2.4KΩ
R727	KAMAYA	E01-000201-00	Chip Res. 1005 J 2.7KΩ
R728	KAMAYA	E01-000201-00	Chip Res. 1005 J 2.7KΩ
R729	KAMAYA	E01-000063-01	Chip Res. 1005 J 100KΩ
R730	KAMAYA	E01-000242-00	Chip Res. 1005 J 33KΩ
R731	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R732	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R733	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R734	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R740	KAMAYA	E01-000136-00	Chip Res. 1005 J 1.8KΩ
R751	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R752	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R753	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R1001	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1002	KAMAYA	E01-000397-00	Chip Res. 1005 J 9.1KΩ
R1003	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1004	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1005	TDK	E02-000049-00	Chip Cap. 1005 K 103PF
R1100	KAMAYA	E01-000263-01	Chip Res. 1005 J 3.9KΩ
R1101	KAMAYA	E01-000218-00	Chip Res. 1005 J 3KΩ
R1102	KAMAYA	E01-000209-00	Chip Res. 1005 J 270KΩ
R1103	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R1104	KAMAYA	E01-000205-00	Chip Res. 1005 J 27KΩ
R1105	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R1106	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1107	KAMAYA	E01-000298-00	Chip Res. 1005 J 470KΩ
R1108	KAMAYA	E01-000301-00	Chip Res. 1005 J 4.7MΩ
R1109	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1110	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R1111	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R1112	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R1113	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R1200	KAMAYA	E01-000047-00	Chip Res. 1005 J 1KΩ
R1201	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω
R1203	KAMAYA	E01-000246-00	Chip Res. 1005 J 330KΩ
R1204	KAMAYA	E01-000107-00	Chip Res. 1005 J 1.5KΩ
R1205	KAMAYA	E01-000289-01	Chip Res. 1005 J 4.7KΩ
R1206	KAMAYA	E01-000112-01	Chip Res. 1005 J 15KΩ
R1207	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1208	KAMAYA	E01-000298-00	Chip Res. 1005 J 470KΩ
R1209	KAMAYA	E01-000301-00	Chip Res. 1005 J 4.7MΩ
R1210	KAMAYA	E01-000056-01	Chip Res. 1005 J 10KΩ
R1211	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
R1212	KAMAYA	E01-000025-01	Chip Res. 1005 J 0Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R1213	KAMAYA	E01-000037-00	Chip Res. 1005 J 10Ω
R1214	KAMAYA	E01-000295-01	Chip Res. 1005 J 47KΩ
RT201	TAI-YOYUDEN	E01-001138-00	Thermistor. 1608 K 1K
RT501	TAI-YOYUDEN	E01-000478-00	Thermistor. 1608 K 10K
RT502	TAI-YOYUDEN	E01-000486-00	Thermistor. 47K (1005)
SPK1	BGTech	E21-000018-00	SHINMYUNG, Speaker, 24Ω 1.0W 36Ω(Connector type)
SW1 ³	BGTech	E09-000048-00	TOKOS, Channel Switch Volume, RY-8487
SW/VOL1 ^{1,2,3}	BGTech	E01-1032-0	TOKOS, Switch Volume, RY-8418 Rev1
U101	BGTech	E04-000754-00	RENESAS ,CPU IC, M3030RFGPGP
U102	BGTech	E04-000114-00	ASAHI KASEL, AUDIO LSI, AK2347
U103	BGTech	E04-000265-00	ZERLINK, DTMF RECEIVER, MT88L70
U104	BGTech	E04-000755-00	MIRCO CHIP, EEPROM IC, 24LC128L
U105	NJRC	E04-000185-00	OP AMP, NJM324
U106	BGTech	E04-000211-00	TOSHIBA, Analog SW IC, TC7S66FU
U107	KEC	E04-000205-00	VOLTAGE DETECTOR, KIA7027AT
U201	AGAMEM	E04-000890-00	AGAMEM IF IC, AA32416
U202	BGTech	E04-000263-00	MCP4011-503E/MS , MIRCO CHIP,DIGITAL POTENTIOMETER,
U401	KEC	E04-000187-00	OP AMP (DUAL), KIA358
U402	BGTech	E04-000262-00	MCP4011-502E/MS , MIRCO CHIP,DIGITAL POTENTIOMETER,
U501	NJRC	E04-000185-00	OP AMP, NJM324
U502	NJRC	E04-000185-00	OP AMP, NJM324

Circuit Ref.	Supplier	Supplier Part No.	Description
U505	BGTech	E04-000150-00	TOKO, REGULATOR IC, TK11250AMTL
U506	BGTech	E04-000588-00	TOKO, REGULATOR IC, TK11233AMTL
U507	BGTech	E04-000207-00	MICRO CHIP, VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-000263-00	MCP4011-503E/MS , MIRCO CHIP,DIGITAL POTENTIOMETER,
U601	BGTech	E04-000109-00	PHILIPS, AUDIO AMP,TDA8541
U701	BGTech	E04-000024-00	FUJISU, PLL IC, MB15E03SLPFV1-(ER)-E1
U1100	NJRC	E04-000024-00	NJM12904R-TE1
U1200	NJRC	E04-000024-00	NJM12904R-TE1
PCB1	BGTech	E11-001007-00	BEACON VHF MDC / QC MAIN PCB (MP02)
SUB PCB1 ^{1,2,3}	BGTech	E11-000002-02	CAFSYSTEM, Sub PCB, 1.2T 2Layer
KEY PCB1 ^{1,2,3}	BGTech	E11-000886-00	CAFSYSTEM, Key PCB, 1.2T 2Layer

Note

1. For PMUD2670AAE Model
2. For PMUD2671AAE Model
3. For PMUD2672AAE Model

Notes

Chapter 11 403 – 447 MHz UHF1 Theory Of Operation

11.1 Introduction

This chapter provides a detailed theory of operation for the radio components. Schematic diagrams for the circuits described in the following paragraphs are located in Chapter 14 of this manual.

11.2 UHF1 Receiver

The UHF1 receiver design covers the frequency range of 403 – 447MHz and it is a double conversion super heterodyne with 1st IF 45.1MHz and 2nd IF 455kHz. The receiver is divided into two major blocks, Front End and Back End as shown in Figure 11-1.

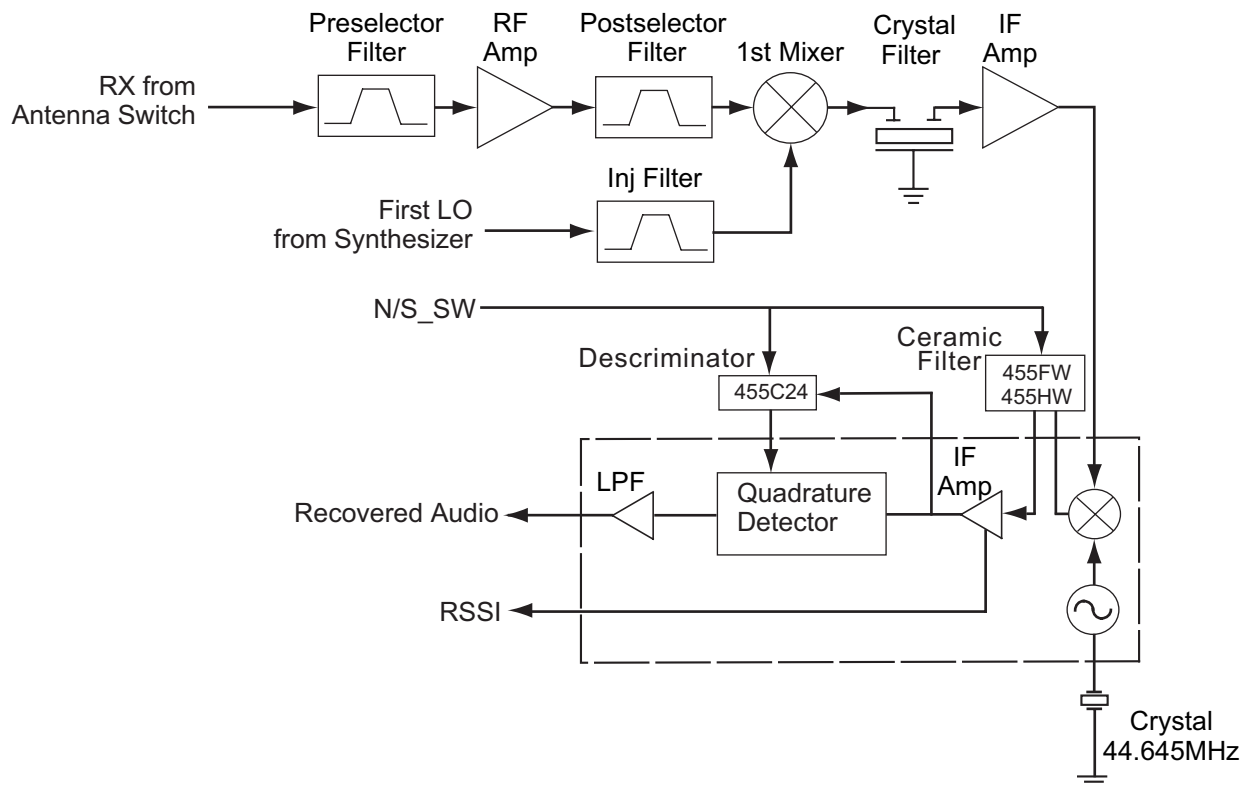


Figure 11-1. UHF1 Receiver Block Diagram

11.2.1 Receiver Front End

Incoming RF signals from antenna are first routed through the harmonic filter (L409 – L411, C426 – C429, C445, C446) and antenna switch (CR301), part of the transmitter circuitry, before being applied to the receiver front end. The receiver front end consists of preselector filter, RF amplifier, post-selector filter and a double-balanced mixer.

The preselector filter is a varactor-tuned 2-pole design using discrete elements (L320, L324, C351, C361, CR307 and CR314) in series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR307 and CR314, which are connected to the microprocessor. It is configured to provide steeper attenuation above the pass band for improved spurious rejection when high-side local injection is used. The frequency is separated into 8 steps and controlled by CPU (403 – 447MHz).

The output of this filter is matched to the base of RF amplifier Q301 which provides 13dB of gain. The output of the RF amplifier is applied to the post-selector filter. The post-selector filter designed using discrete elements (L323, L328, C379, C363 and C355) in a series/shunt resonator configuration. It is a band-shift filter and the frequency shift is controlled by varactor diodes CR305 and CR313, which are connected to the microprocessor. It is configured to provide steeper attenuation above the passband for improved spurious rejection when high-side local injection is used. The frequency is separated into 8 steps and controlled by CPU (403 – 447MHz).

The output of the post selector is connected to the double-balanced mixer consisting of components L329, L333, CR316. 1st local signal generated from VCO is filtered by injection filter (L310, L331, C325, C326, C388, C386, C365 and C387) to remove harmonics. The converted 1st IF frequency at mixer passes through L333 and matches the 45.1MHz IF signal to crystal filter (FL301).

11.2.2 Receiver Back End

The 1st IF signal is amplified about 15dB by IF amp Q303. The output of the IF amp is connected to IF IC (U201).

1st IF frequency (45.1MHz) and 2nd LO frequency (44.645MHz) are mixed in U201. The second mixer converts the 45.1MHz high IF frequency to 2nd IF frequency (455kHz).

Additional IF selectivity is provided by two ceramic filters (CF1, CF2). The wider filter 455FW is used for 25kHz channel spacing, and the narrower filter 455HW is used for 12.5kHz channel spacing. These two ceramic filters may eliminate undesired signal and demodulated by demodulator in U201. N/S_SW which connected to microprocessor is used to select the side and narrow band.

The mute (squellch) circuit switches off the audio amplifier when no audio is present. The squellch circuit consists of U201 and U202 and their associated components. The noise signal from Pin 9 of U201 is used to control the squellch circuit sensitivity of U202. The noise passes through filter, and is amplified by internal amp of U201. The amplified noise acts as a DC voltage to control the mute system. So if the noise level is under the threshold voltage, the microprocessor (U101) un-mutes the radio. If the noise level is over the threshold voltage, the microprocessor mutes the radio. The squellch level is tuned in the factory. When a component or a part in the RX system is replaced, the squellch must be re-tuned using the Tuner.

11.3 UHF1 Transmitter

The UHF1 transmitter covers the range of 403 – 447MHz. Depending on model, the output power of the transmitter is switchable on a per-channel basis between high power (4 Watt) and low power (1 Watt). The transmitter is divided into four major blocks as shown in Figure 11-2.

- Power Amplifier
- Harmonic Filter
- Antenna Matching Network
- Power Control.

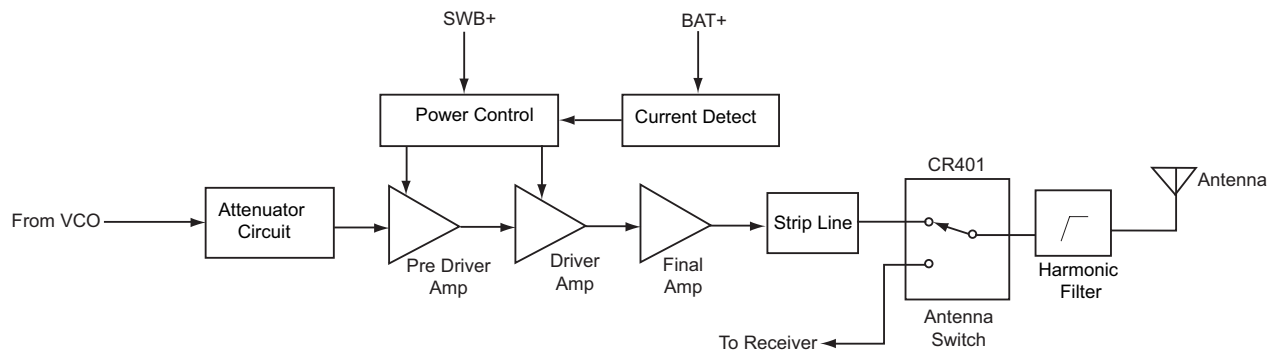


Figure 11-2. UHF1 Transmitter Block Diagram

11.3.1 Power Amplifier

The transmitter power amplifier has three stages of amplification – Pre Driver (Q401), Driver Amp (Q402) and Final Amp (Q403). Signal from TX VCO is applied to the pre driver via an attenuator circuit. The attenuator is pie style resistor attenuator, and is used as isolation between VCO and the power amps. The -4dBm TX RF signal from attenuator is then amplified by pre driver and driver amp to around +25dBm and is applied to the final amp. The final amp (Q403) is an enhancement-mode N-channel MOSFET device providing a gain of 12dB. The device drain current is drawn directly from the DC battery supply voltage input via L413. A matching network consisting of C416, C417, C418, C419, C420, C451, C422, C452 and a strip line, transforms the impedance to approximately 50Ohm.

11.3.2 Antenna Switch

An antenna switch works mainly as a switching device between transmit and receive paths. In transmit mode (PTT), Q407 is turned on and both PIN diodes (CR401, CR301) are forward biased into conduction. This enables the RF signal to pass to the harmonic filter and then to the antenna. In the receiver mode, both diodes are off. Signals applied to the antenna jack are routed via the LPF (harmonic filter), through network L409, L410, L411, C426, C427, C428, C429, C430, C445, C446 to the receiver input.

11.3.3 Harmonic Filter

The harmonic filter consists of components L409, L410, L411, C426, C427, C428, C429, C430, C445 and C446. The harmonic filter is a seven-pole elliptic filter.

11.3.4 Auto Power Control

The APC keeps the current supply constant to the final amp (Q403). The drain current of Q403 (final amp) is sensed across resistor R417. The differential signal at the output of U401 (Pin 7) is passed to Q404 and Q405 that produces a constant power output to the antenna. If the current is changed due to change of battery voltage or load, APC controls gate voltage of Q403 and collector voltage of Q401 and drain voltage of Q402 to keep TX power stable. This circuit stabilizes TX power at a pre-determined level adjusted by U402. This bias voltage is tuned in the factory. If the transistor (Q403) is replaced, the RF Output Power must be tuned. By tuning the RF output power, the bias voltage will be tuned through U402. Extra care has to be taken during the tuning process. Do not exceed the maximum allowed bias voltage.

11.4 UHF1 Frequency Generation Circuitry

The PLL synthesizer subsystem consists of the reference oscillator (VCTCXO), VCO, PLLIC, Charge pump and Loop Filter.

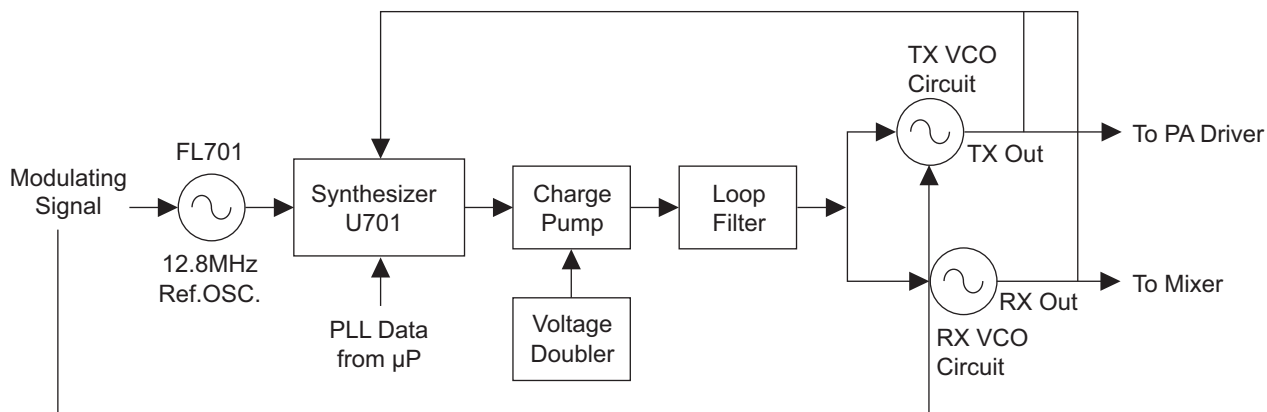


Figure 11-3. UHF1 Frequency Generation Unit Block Diagram

11.4.1 Reference Oscillator (12.8 MHz VCTCXO)

The reference oscillator is powered by regulated 5V provided by U505. The reference frequency 12.8MHz VCTCXO (Voltage Controlled Temperature Compensated Crystal Oscillator) is applied to the PLL IC (U701) via Pin 1. Min frequency can be adjusted by chip trimmer of VCTCXO. This frequency provides reference to the PLL IC and has a frequency stability of ± 2.5 PPM (max) at the temperature ranging from -30 to +60 Degree Celsius.

11.4.2 PLL IC Prescaler and Comparator

The reference frequency from VCTCXO is divided to 6.25kHz or 5kHz by reference counter, R. The RF signal input from the VCO is divided to by prescaler (1/64), divided by N and A counters in PLL IC to determine frequency steps and then supplied to the comparator. The comparison frequency is 6.25/5kHz. The internal phase comparator compares the phase difference between the reference and VCO signal. When the phase of the reference frequency is leading, Pin 15(R) is the output. When VCO frequency is leading, Pin 16 (P) is the output. When P=R, small pulses are the output of the phase detector.

11.4.3 Voltage Doubler and Charge Pump

The voltage doubler (U507) converts 5 V to 10 V and is applied to the charge pump circuitry. The charge pump is used for charging output signals P, R supplied by PLL IC from 0 – 3.3 V to 0 – 10 V. This voltage is used to drive the VCO.

11.4.4 Loop Filter

The loop filter contains C751 – C754, R726 – R728. It reduces the residual side-band noise to get the best signal-to noise ratio. The output signal from loop filter is applied to VCO.

11.4.5 Dual VCO

The dual VCO module contains a RX VCO and a TX VCO. They are configured as colpitts oscillators and connected to power up through transistor switches. Only one VCO is selected at a time. A steering line voltage between 0.35V and 9.7V at varactor CR701 tunes the full RX frequency range from 357.9MHz to 401.9MHz and varactor CR703 tunes the full TX frequency range from 403MHz to 447MHz.

In Receiver mode, high signal of RX_EN from Pin 71, U101 activates Q305. When Q305 is activated, current flows through the base of Q304 and thus activates the Q705. The varactor CR701 sets the resonance frequency. When there is a change in voltage supplied by loop filter, there is a change in the resonance frequency. L703 is the resonating coil, which forms the tank circuit together with variable cap C710.

In Transmit mode, high signal of TX_EN1 from Pin 84, U101 enables current flows through collector of Q503 and thus activates Q706. The varactor CR703 sets the resonance frequency. When there is a change in voltage supplied by loop filter, there is a change in the resonance frequency. L706 is the resonating tuning coil, which forms the tank circuit together with variable cap C722.

11.5 Keypad

Left, Right and P1 to P3 keys are directly connected to microprocessor via 22 Pin connector. When any of these keys is pressed, the voltage goes “low” and microprocessor detects it.

For full keypad models, the number keys are in matrix type which consisted of 3 rows and 4 columns. When any of these keys is pressed, the voltage goes “low” and microprocessor interprets the voltage for each key press.

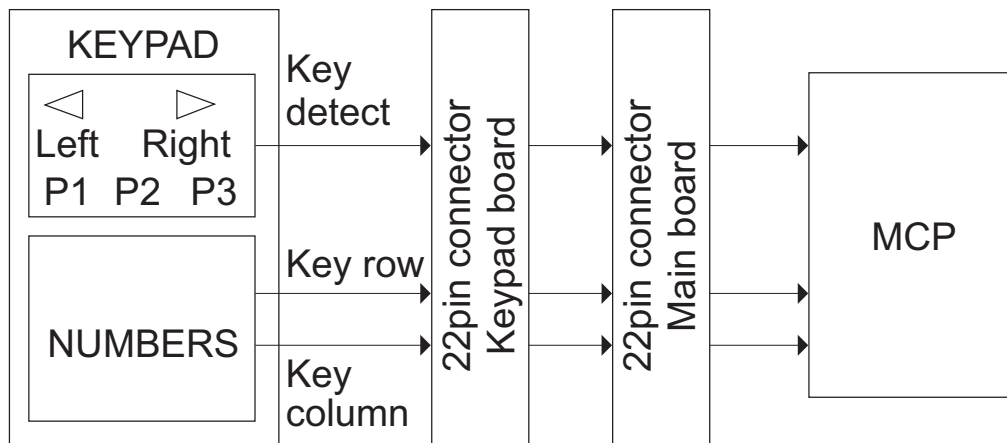


Figure 11-4. Keypad Block Diagram

Chapter 12 UHF1 Troubleshooting Tables

12.1 Troubleshooting Table for Receiver (UHF1)

Table 12-1. Troubleshooting Table for Receiver (UHF1)

Symptom	Possible Causes	Procedure	Corrective Action
Radio Dead (no turn-on beep, no LED indication)	1. Battery dead or defective	Substitute good battery or battery eliminator	Change or replace battery.
	2. Defective battery contacts	Inspect battery contacts for corrosion or bent terminals	Clean/Repair/Replace J602
	3. Microprocessor not starting up	Verify clock input to U101 Pin 13 is 7.3728 MHz using high impedance probe.	Troubleshoot/Replace FL101.
		Verify U101 Pin10(reset) is high.	If reset is Low, troubleshoot regulator U506 or U107.
	4. Regulator fault	Verify U506 Pin 4 is 3.3V	Check for shorts on outputs
		Verify U505 Pin 4 is 5.0V	Troubleshoot/Repair as needed, replace faulty regulator
	5. Flexible Cable fault	Check connection of the 12 pin flexible cable between J104 & J105	Re-assemble or replace flexible cable
No RX Audio (with LED indication)	1. Speaker dead or defective	Substitute a good housing (with speaker)	Change the housing (with accessory)
		Verify J603 connection	Change the housing (with accessory)
	2. Audio Processor IC not starting up	Verify clock input U102 Pin 14 is 3.5795 MHz using high impedance probe.	Troubleshoot/Replace FL102
	3. Audio Amp IC not starting up	Verify U601 Pin 6 is battery voltage.	Troubleshoot/Replace U601
		If battery voltage is being supplied to Pin 6, then verify audio output at Pin 5 & 8.	
No Receive (with no LED indication)	1. IF IC dead or fault	Verify clock input to U201 Pin 1 & 2 is 44.645Mhz using high impedance probe.	Troubleshoot/Replace FL201
No RX	1. RX-B+	Verify Q304's collector voltage is 4.8V when RX-EN is high.	Check/Replace Q304

12.2 Troubleshooting Table for Synthesizer (UHF1)

Table 12-2. Troubleshooting Table for Synthesizer (UHF1)

Symptom	Possible Causes	Procedure	Corrective Action
Synthesizer Out of Lock (No RX Mode)	1. Defective 12.8 MHz VCTCXO	Verify clock output FL701 Pin 3 is 12.8 MHz using high impedance probe.	Repair/Replace FL701
	2. 1/2VCC defective	Verify FL701 Pin 1, U502–B Pin 5 & U502–D Pin 14 voltage is 1.9V.	Troubleshoot: 1/2VCC circuitry
	3. No RX–Enable	Verify U101 Pin 71 (RX–EN1) is high.	Check U101 operating
		Verify Q304 collector voltage is approximately 4.7V in RX mode	Troubleshoot: Q304 & Q305 circuitry
Synthesizer Out of Lock (No TX Mode)	4. Check PLL–LD port	Verify U101 Pin 27 is Low (Normal Mode)	Troubleshoot: PLL circuitry.
		Verify U101 Pin 27 is swept from low to high (Power Save Mode)	Repair/Replace U701
	1. Defective 12.8 MHz VCTCXO	Verify clock output FL701 Pin 3 is 12.8 MHz using high impedance probe.	Repair/Replace FL701
	2. 1/2VCC defective	Verify FL701 Pin 1, U502–B Pin 5 & U502–D Pin 14 voltage is 1.9V.	Troubleshoot: 1/2VCC circuitry
	3. No TX–Enable	Verify U101 Pin 84(TX–EN1) is high when PTT is pressed.	Check U101 operating
		Verify Q407 collector voltage is approximately 4.7V when PTT is pressed (TX–EN2).	Check U101–Pin 85 is high/ Replace Q407/check LK2 is short
	4. Check PLL–LD port	Verify U101 Pin 27 is Low (Normal Mode)	Troubleshoot: PLL circuitry
		Verify U101 Pin 27 is swept from low to high (Power Save Mode)	Repair/Replace U701

12.3 Troubleshooting Table for Transmitter (UHF1)

Table 12-3. Troubleshooting Table for Transmitter (UHF1)

Symptom	Possible Causes	Procedure	Corrective Action
No internal Mic audio	1. Mic dead or defective	Verify audio present (~10mV rms) when speaking into Mic. Check bias of R194 (3.3V).	Replace Mic.
	2. Mic bias fault	Verify U101 Pin 78 is 1.1V when PTT button is pressed.	Check/Replace U101
	3. Audio Processor IC not starting up	Verify clock input U102 Pin 14 is 3.5795 MHz using high impedance probe.	Troubleshoot/Replace FL102
No EXT. Mic audio	1. J601 defective	Check connection with EXT mic	Check/Replace J601
	2. Audio Processor IC not starting up	Verify clock input U102 Pin 14 is 3.579545 MHz using high impedance probe.	Troubleshoot/Replace FL102
No transmit (No TX LED indication)	1. PTT switch defective	Verify U101 Pin 44 is low when PTT is pressed.	Replace PTT switch PB501
No transmit (TX LED indication OK)	1. Synthesizer out of lock	Refer to Table 12-2.	Refer to Table 12-2.
	2. No TX-Enable	Verify U101 Pin 84 (TX-EN1) is high when PTT is pressed. Verify Q407 collector voltage is approximately 4.7 V when PTT is pressed (TX-EN2).	Check U101 Pin 85 is high/ Replace Q407/Check LK2 is short
Low Power	1. Low TX injection	Check the RF level at Q409 & C449 per schematic.	Troubleshoot Q409 circuitry & VCO bias
	2. R417 defective	Verify resistance is 0.1 Ohm	Replace R417.
	3. Incorrect control voltage	Verify Q404 collector voltage is approximately 5.5V in low frequency & high power.	Troubleshoot APC circuitry Replace Q404
	4. Q403 defective (High current)	Verify U401 Pin 7 is near 0V	Replace Q403
	5. Antenna switch defect	Verify CR401 anode voltage is approximately 1.4 V	Check/replace CR401 & CR301
	6. Harmonic filter defective	Visually inspect components C426 – C429, C445, C446, C430	Repair/Replace if necessary
	7. Incorrect power tuning (this has to be performed only after item 1-6 has been checked)	Check conducted power	Re-tune power using tuner.
Poor TX range (Conducted power OK)	1. Defective or wrong Antenna.	Verify correct antenna is installed. Try using another antenna.	Replace antenna

12.4 Troubleshooting Table for Board and IC Signals (UHF1)

Table 12-4. Troubleshooting Table for Board and IC Signals (UHF1)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
U201(IF IC)	1	Osc1	3.9	44.645 MHz input
	2	Osc2	3.3	
	4	VCC	4.7	
	9	Audio frequency	1.2	
	12	RSSI out	Approximately 1	At -47dBm (with conducted)
	13	N-DET(BUSY)	Low	At busy
	15	GND	0	
	16	RF input	1	45.1 MHz input
U701(PLL IC)	1	Reference OSC input	1.4	12.8 MHz input
	4	VCC	3.3	
	6	GND	0	
	7	XF IN	2.2	
	8	F IN	2.2	
	12	Power save	High	
	13	GND	0	
	14	LD_out	High	If pll unlock is low
	15	@P	2.4	
	16	@R	Low	
U601	1	Mode (Mute con)	0	
(Audio Amp.)	2	SVR	3.8	
	3	IN+	3.8	
	4	IN-	3.8	
	5	OUT-	3.8	
	6	VCC	7.5	This voltage depends on Battery
	7	GND	0	
	8	OUT+	3.8	
U103	1	IN+	1.6	

Table 12-4. Troubleshooting Table for Board and IC Signals (UHF1) (Continued)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
(DTMF decoder)	2	IN-	1.6	
	3	GS	1.6	
	4	Vref	1.6	
	8	OSC1	1.6	3.579545 MHz input
	10	VSS	0	
	11	TOE	3.3	
	17	STD	High	At DTMF detecting
	18	EST	3.3	
	19	ST/GT	3.3	
	20	VDD	3.3	
FL701(VCTCXO)	1	VCON	1.9	
	2	GND	0	
	3	OSC out	osc	Generate the 12.8 MHz
	4	VCC	5	
Q206(N/S SW)	E	GND	0	
	B	N/S SW	12.5 kHz: Low	
	C	Collector	12.5 kHz: High 25 kHz: Low	
Q304	E	+5V	5	At RX Mode
	B	To Q305 collector	Low	
	C	RX_B+	4.7	
Q305	E	GND	0	At RX Mode
	B	RX_EN	High	
	C	To Q304 base	Low	
Q503	E	GND	0	At TX Mode
	B	TX_EN1	High	
	C	To Q706 base	Low	
Q407	E	+5V	5	At TX Mode
	B	To Q408 collector	Low	
	C	TXVB	4.7	
Q408	E	GND	0	At TX Mode
	B	TX_EN2	High	
	C	To Q407	Low	

Table 12-4. Troubleshooting Table for Board and IC Signals (UHF1) (Continued)

IC Designator	Pin	Pin Function	DC Voltage (V)	Comments (Condition)
Q601	E	GND	0	
	B	Audio_MUTE_CON	Mute: Low	
			None Mute: High	
	C	Mode	Mute: High	
			None Mute: Low	

1. All voltages are measured with a high-impedance digital voltmeter and expressed in volts DC relative to ground (0V).
2. Voltages are measured with a DC input voltage of 7.50 + .02 volts DC applied to the battery connector (J602).
3. All voltages are measured in the squelched receive mode, unless otherwise indicated.
4. Voltages are identical for VHF and UHF models unless otherwise indicated.

Chapter 13 UHF1 Schematic Diagrams, Overlays, and Parts Lists

13.1 Introduction

This section provides schematic diagrams, overlays, and parts lists for the radio circuit boards and interface connections.

13.1.1 Notes For All Schematics and Circuit Boards

* Component is frequency sensitive. Refer to the Electrical Parts List for value and usage.

1. Unless otherwise stated, resistance values are in Ohms ($K = 1000$), capacitance values are in nanofarads (nF), picofarads (pF) or microfarads (μF), and inductance values are in nanohenries (nH) or microhenries (μH).
2. DC voltages are measured from point indicated to chassis ground using a Motorola DC multimeter or equivalent. If the board has been removed from the chassis, the transmitter module mounting screws may be used for ground connection. (*Note: The antenna nut bracket is connected to ground.*) Operating mode dependent voltages are followed by (RX) for receive mode, (TX) for transmit mode, (UNSQ) for unsquelched mode, etc.
3. RF voltages on VHF models are measured with a Fluke model 85 RF probe. The indicated voltages expressed in mV (RF) are DC level readings which correspond approximately 1:1 to the RF voltage level in mV rms. RF voltages in the Receiver Front End and Receiver Back End circuits are measured with an on-channel 1mV (-47dBm) RF signal applied to the antenna jack ANT1/ANT.
4. RF voltages on UHF models are measured both with a high-impedance RF voltmeter having a bandwidth in excess of 500 MHz (levels are expressed in dBm) and with a Fluke model 85 RF probe [levels are expressed in mV (RF)]. These indicated voltages are DC level readings which correspond approximately 1:1 to the RF voltage level in mV rms, and are only approximate for UHF frequency measurements. RF voltages in the Receiver Front End and Receiver Back End circuits are measured with an on-channel 1mV (-47dBm) RF signal applied to the antenna jack ANT1/ANT.
5. Audio voltages are measured with a high-impedance AC rms voltmeter. The indicated voltages are expressed in mV rms. Receive mode voltages are followed by (RX) and are measured with an on-channel signal with 1 kHz modulation at 60% deviation (3 kHz for 25 kHz channels, or 1.5 kHz for 12.5 kHz channels). Transmit mode voltages are followed by (TX) and are measured with a 1 kHz, 10 mV rms signal present at the external microphone input (accessory connector J601).

6. Reference Designators are assigned in the following manner:

Ref. No. Series	Circuit Block
101 – 199	Microprocessor & audio control circuits
1001 – 1099	Microprocessor & audio control circuits
201 – 299	IF IC circuit
301 – 399	Front-end and 1st Mixer
401– 499	Transmit RF stage & Auto power control
501 – 599	Base band & generating circuit
601– 699	Audio amplifier
701– 799	VCO & PLL Synthesizer

7. Circuit Block Interconnection Legend:

Name	Description
+5V	5 Volts (Regulated)
+3.3V	3.3 Volts (Regulated)
SWB+	Switched Battery Voltage
BAT+	Unswitched Battery voltage
+10V	Digital 10V(Regulated)
RESET	Low-line reset signal from U107 to U101 Pin 10
TX_EN1	Transmit enable signal from U101 Pin 84
TX_EN2	Transmit enable signal from U101 Pin 85
TXVB	TX operating voltage
TX_AF3	TX audio signal from audio processor IC to TX Audio filter
TX_SUB_TONE	TX sub tone signal from audio processor IC to TX modulation.
RX_B+	RX operating voltage
RSSI	RX signal strength indication from IF IC to U101
Busy	RX detect signal from IF IC to U101
FTV	RX frequency shift voltage
RX_AF1	RX audio signal from IF IC to Audio processor IC
PLL_LD	PLL lock detect signal from PLL IC to U101
N/S SW	Channel space selectable Switch (12.5 kHz/25 kHz)
1/2VCC	1.9 volts (divided by U502-D)

13.1.2 Four Layer Circuit Board

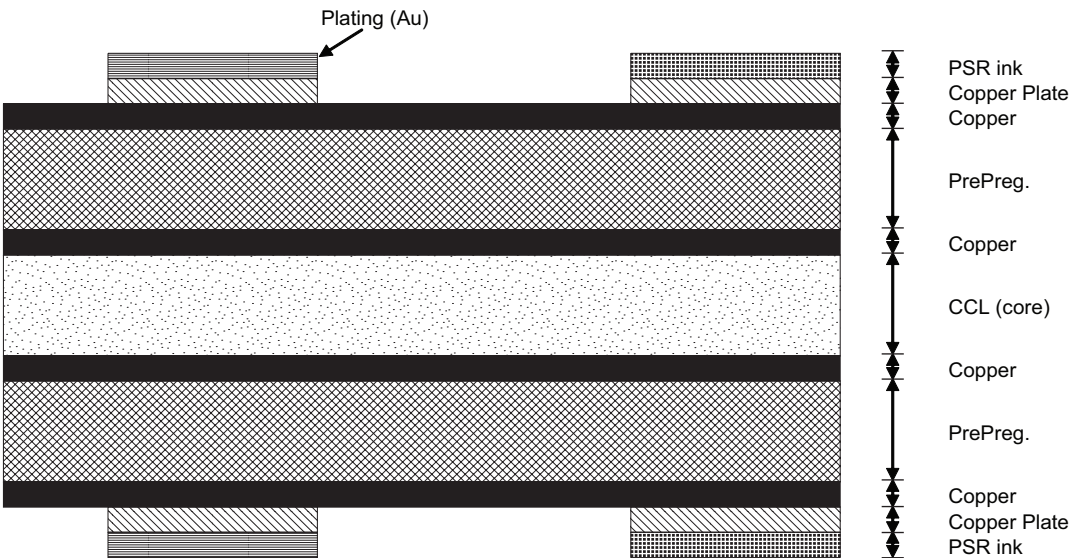


Figure 13-1. Four-Layer Circuit Board: Copper Steps in Layer Sequence

13.2 Speaker and Microphone Schematic

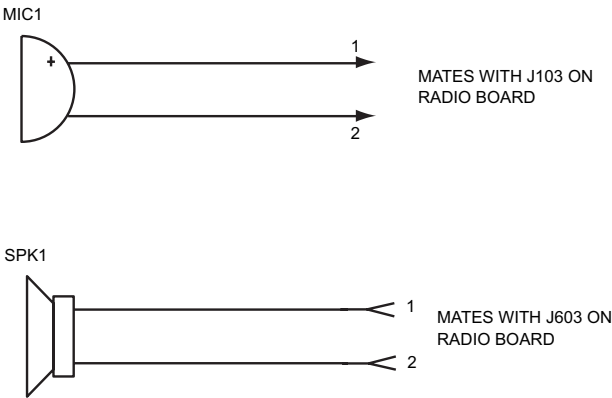


Figure 13-2. Speaker and Microphone Schematic

13.2.1 Speaker and Microphone Parts List

Reference Designator	Motorola Part No.	Description
MIC1	PMDN4139_R	Microphone
SPK1	PMDN4067BR	Speaker & Cable

Notes

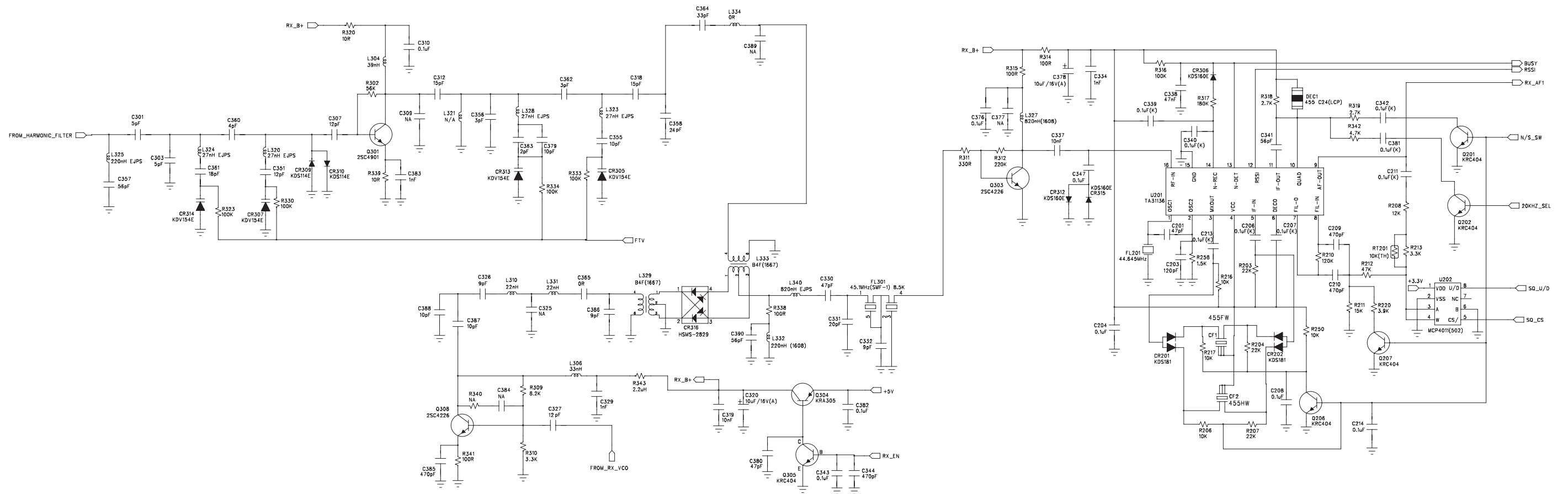


Figure 13-3. UHF1 (403–447 MHz) Receiver Schematic Diagram(Part No: E11-0763-0)



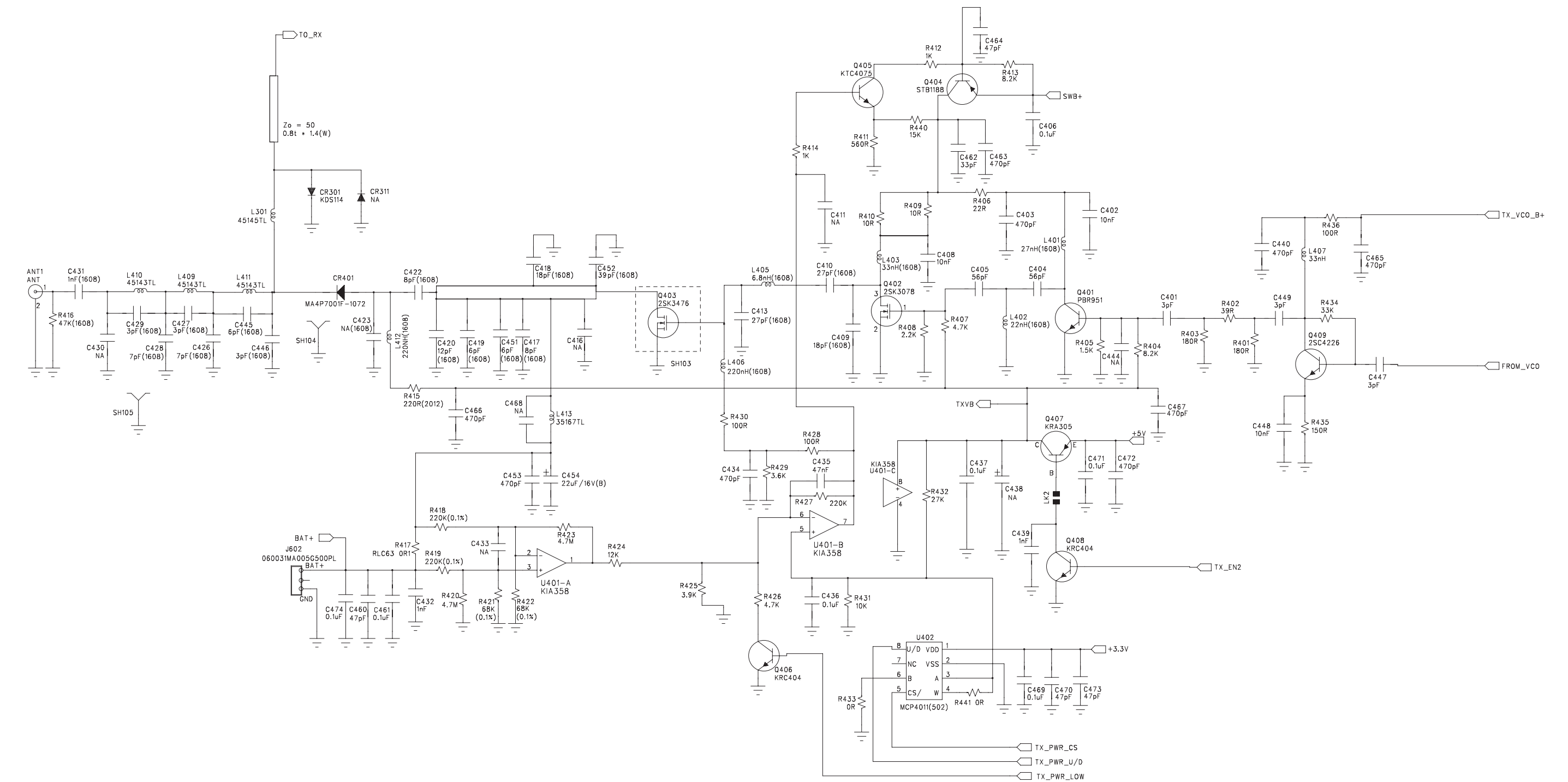


Figure 13-5. Transmitter Schematic Diagram

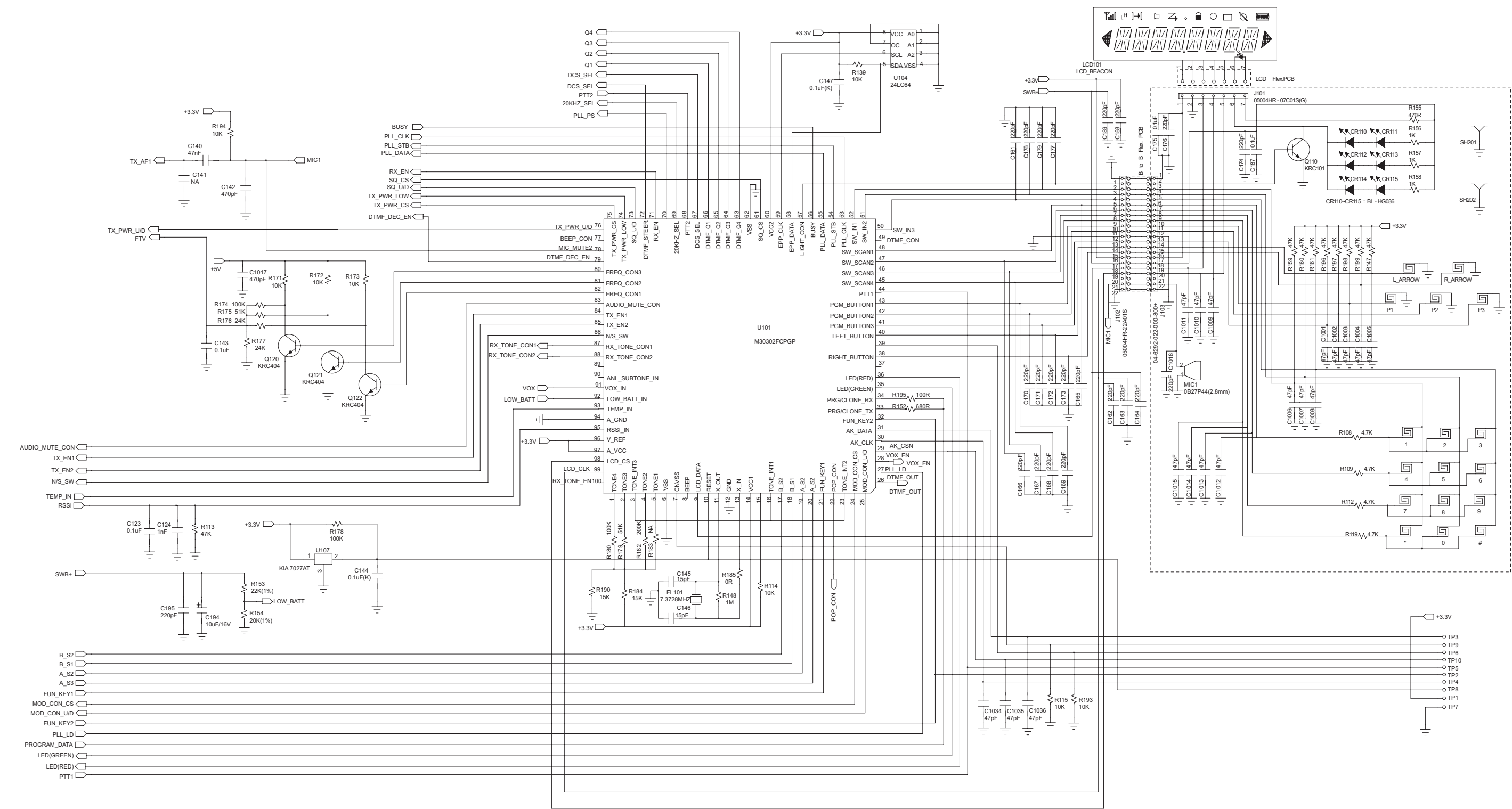


Figure 13-6. Microprocessor and Keypad Schematic Diagram

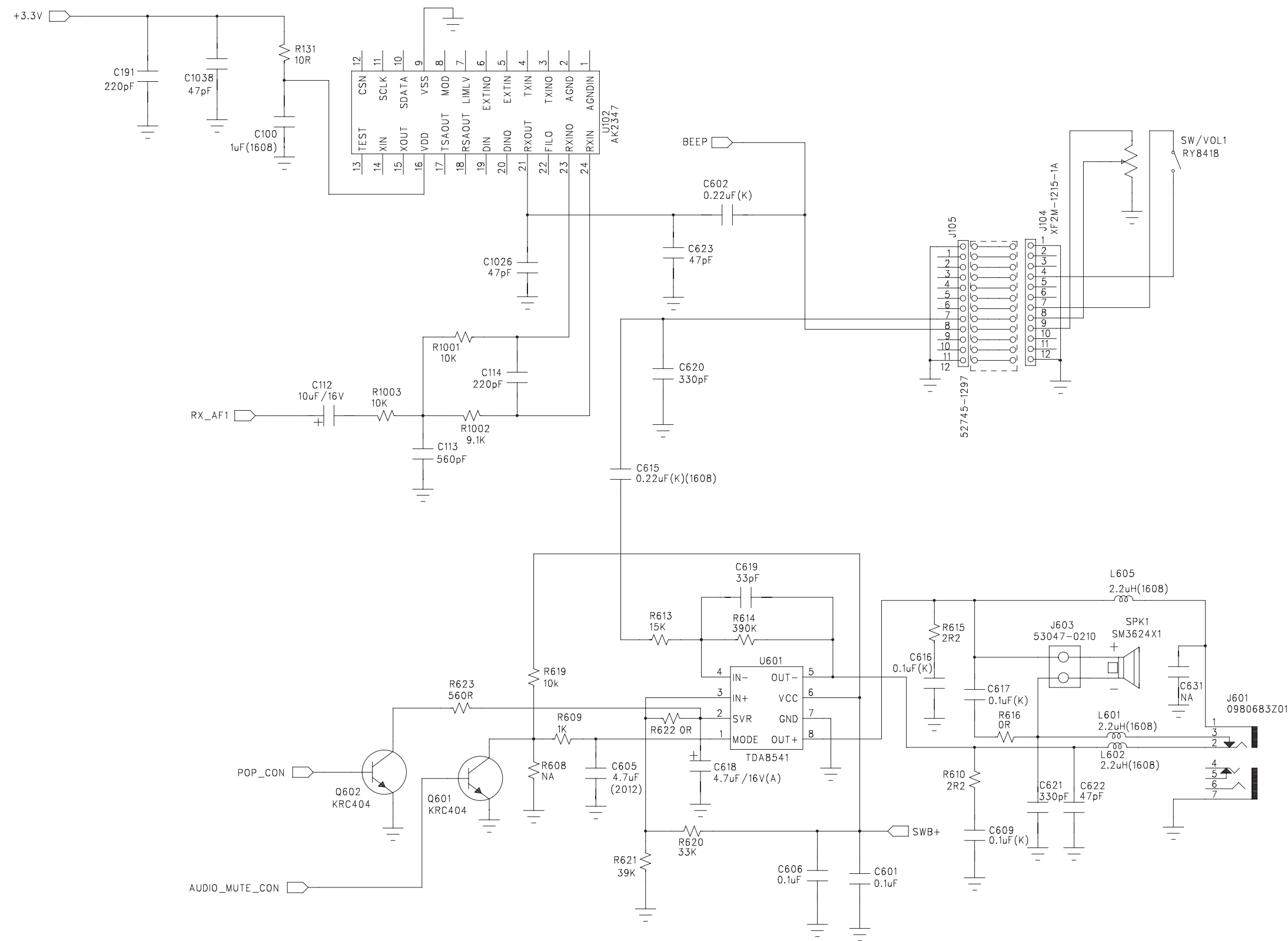


Figure 13-7. Audio Power Amplifier and External Audio Schematic Diagram

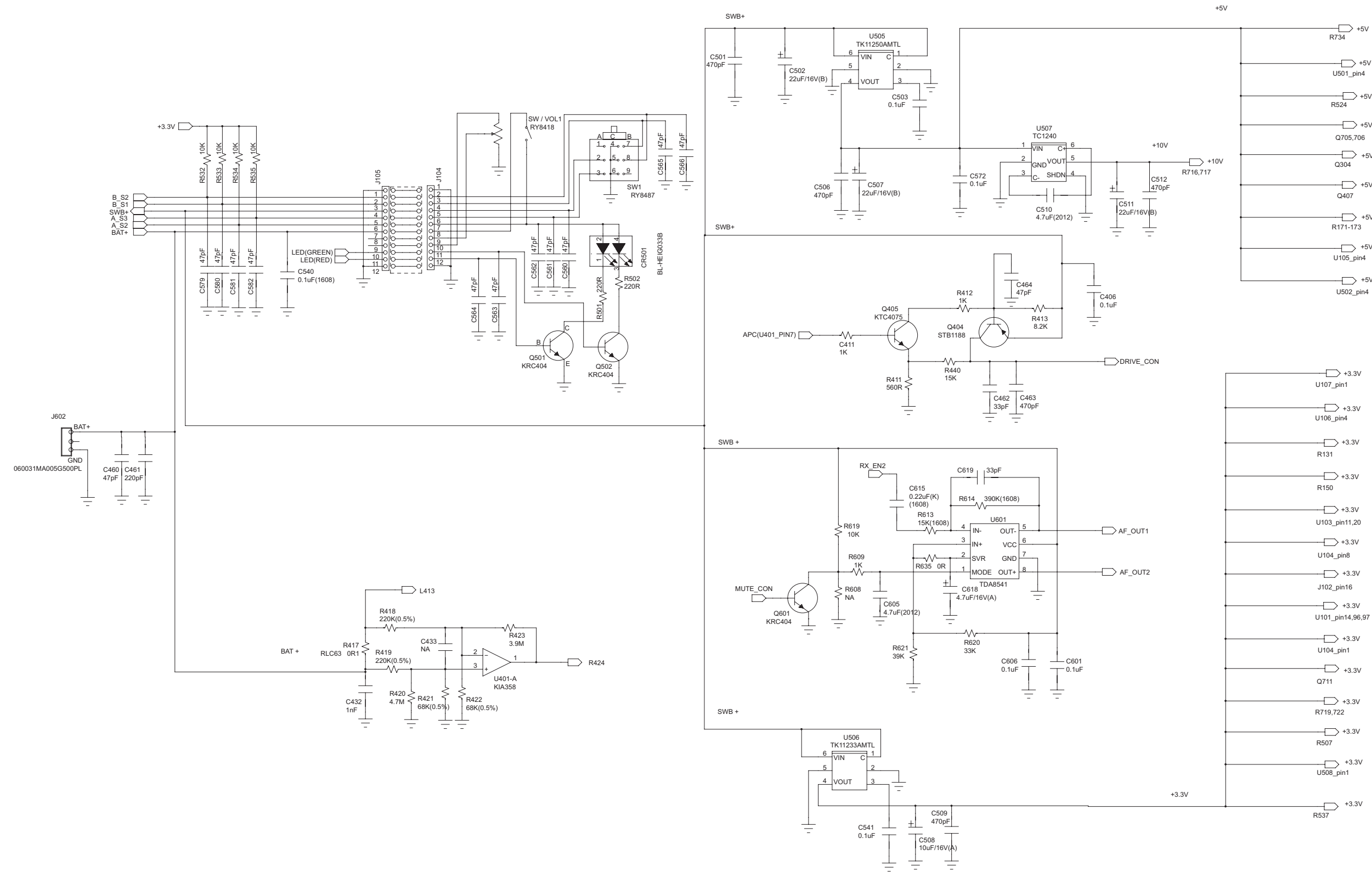


Figure 13-8. Switches and Battery Schematic Diagram

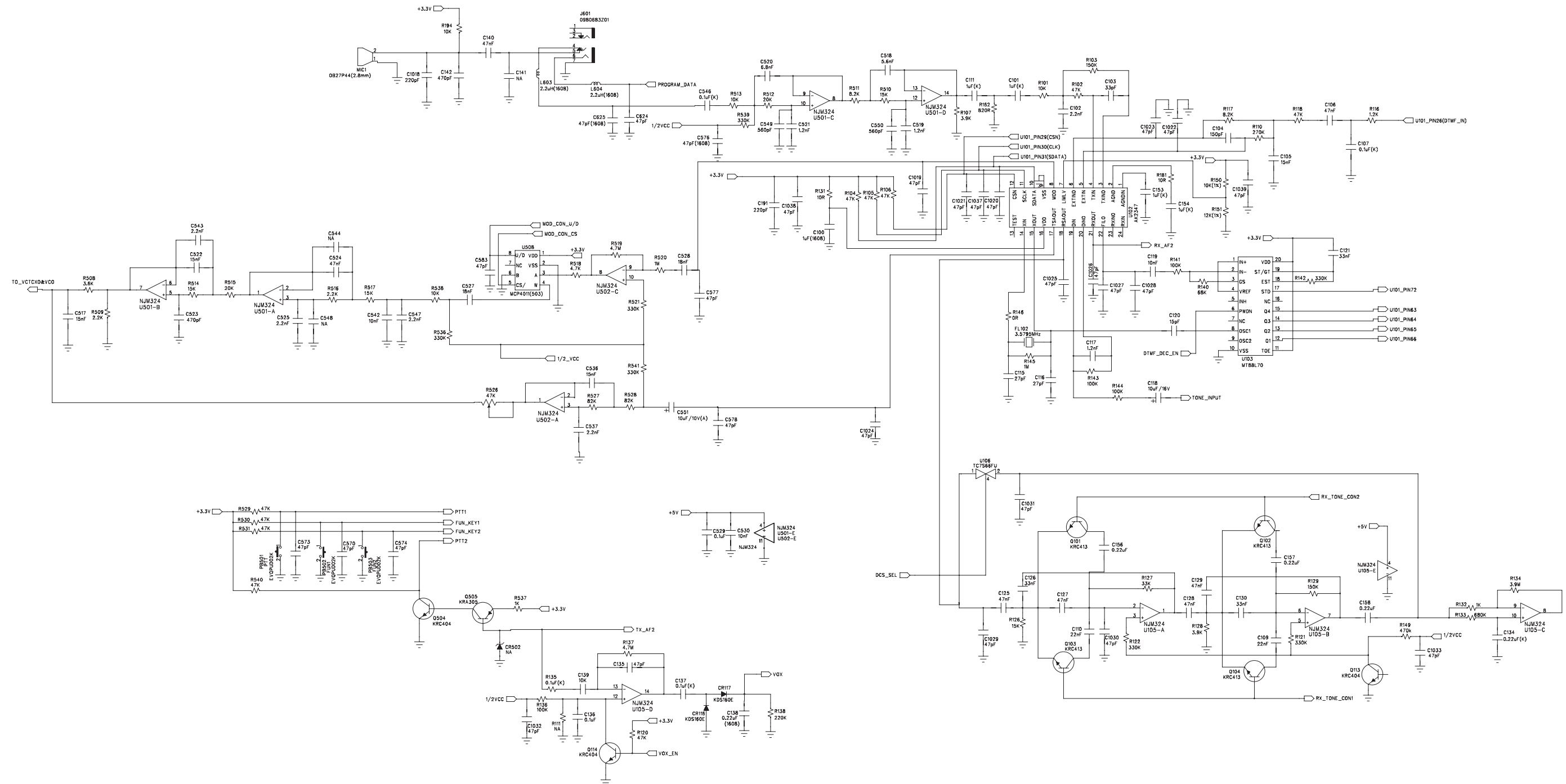


Figure 13-9. Transmitter Audio Filter and Sub-tone Schematic Diagram

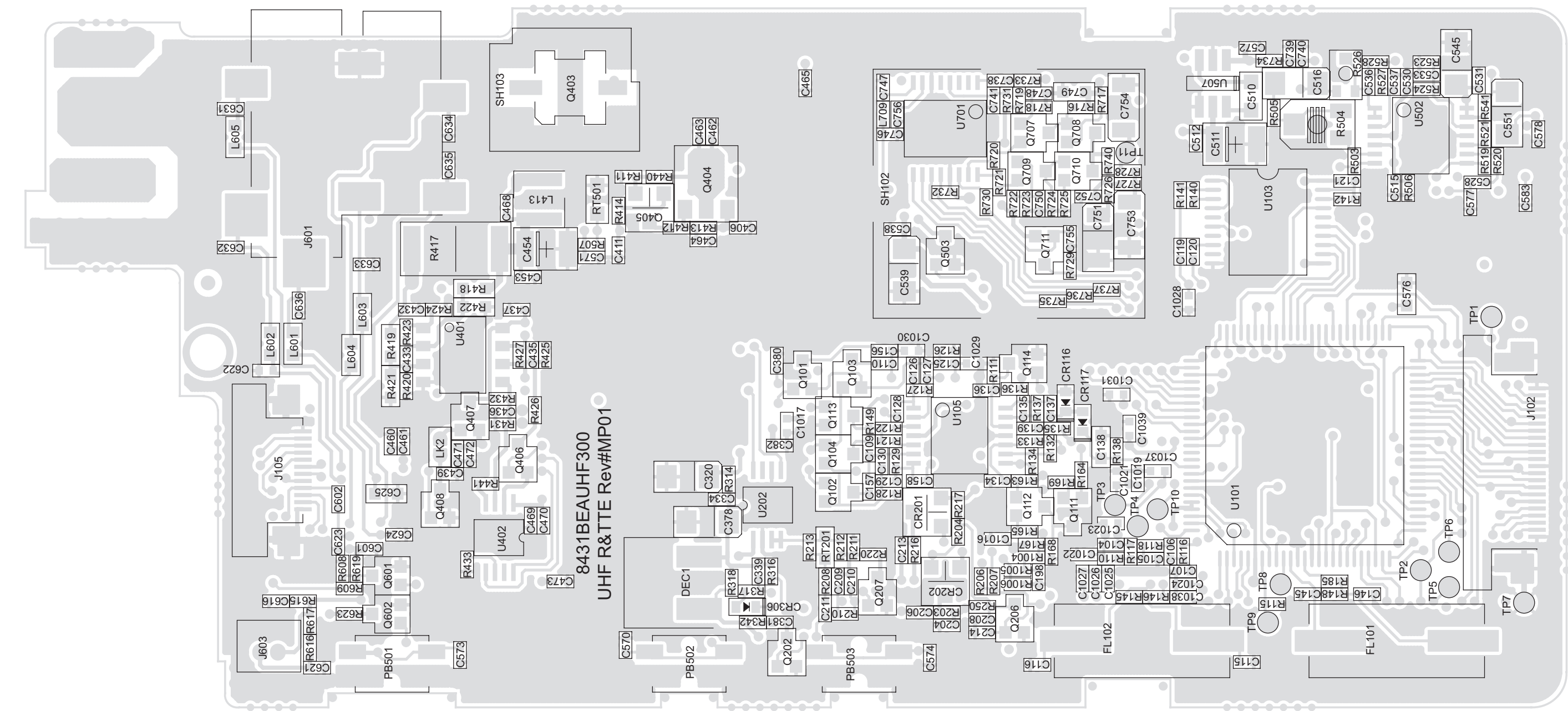


Figure 13-10. UHF1 (403–447 MHz) Mainboard Top Side: PCB No. E11-0763-0

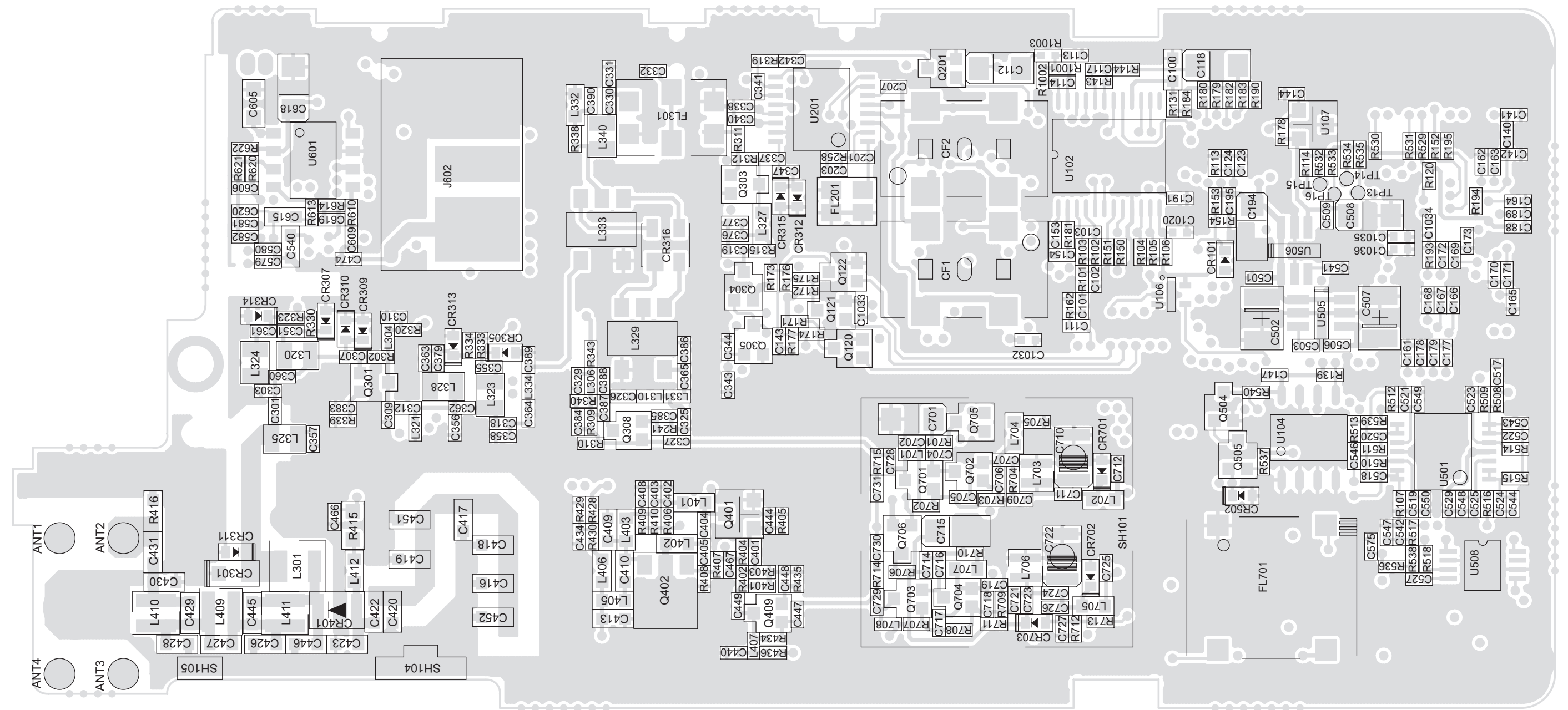
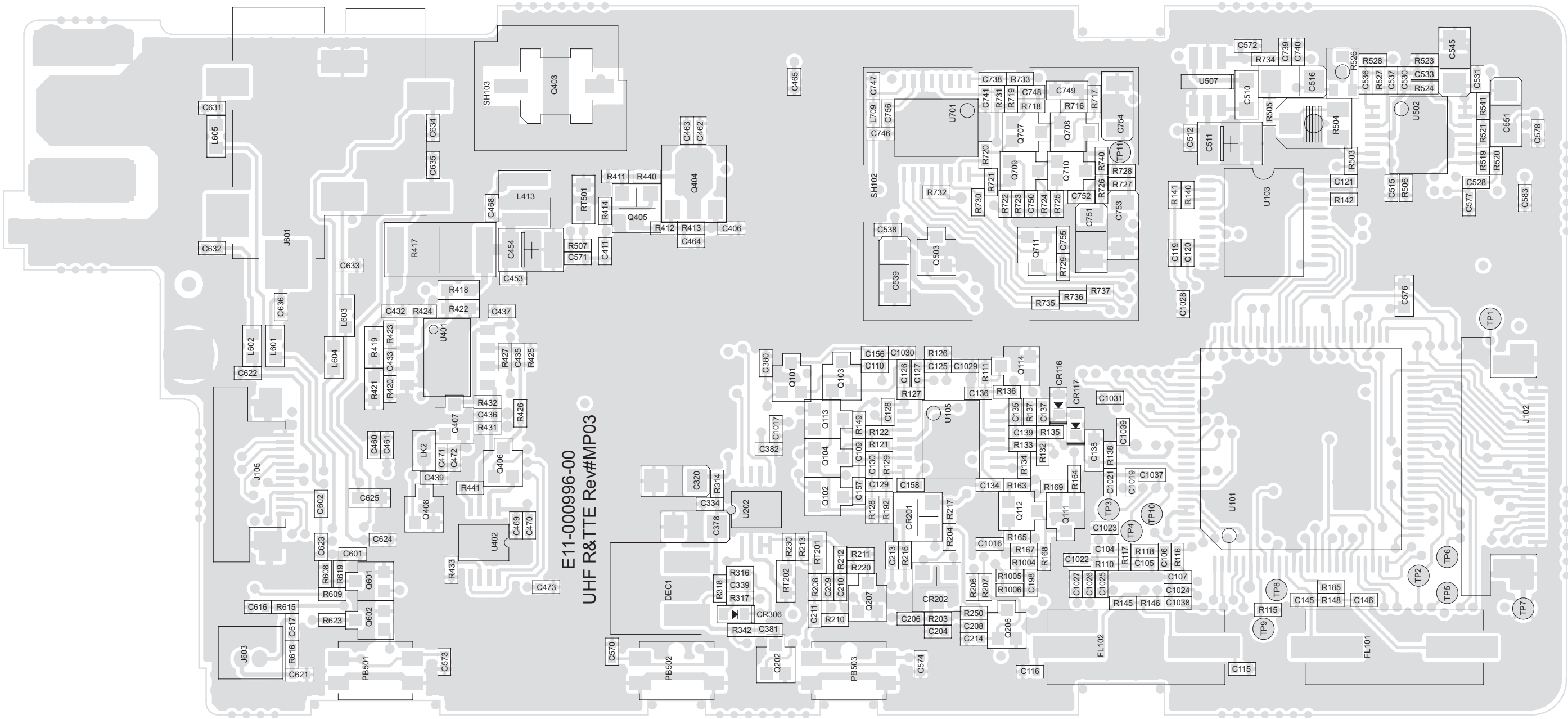


Figure 13-11. UHF1 (403–447 MHz) Mainboard Bottom Side: PCB No. E11-0763-0



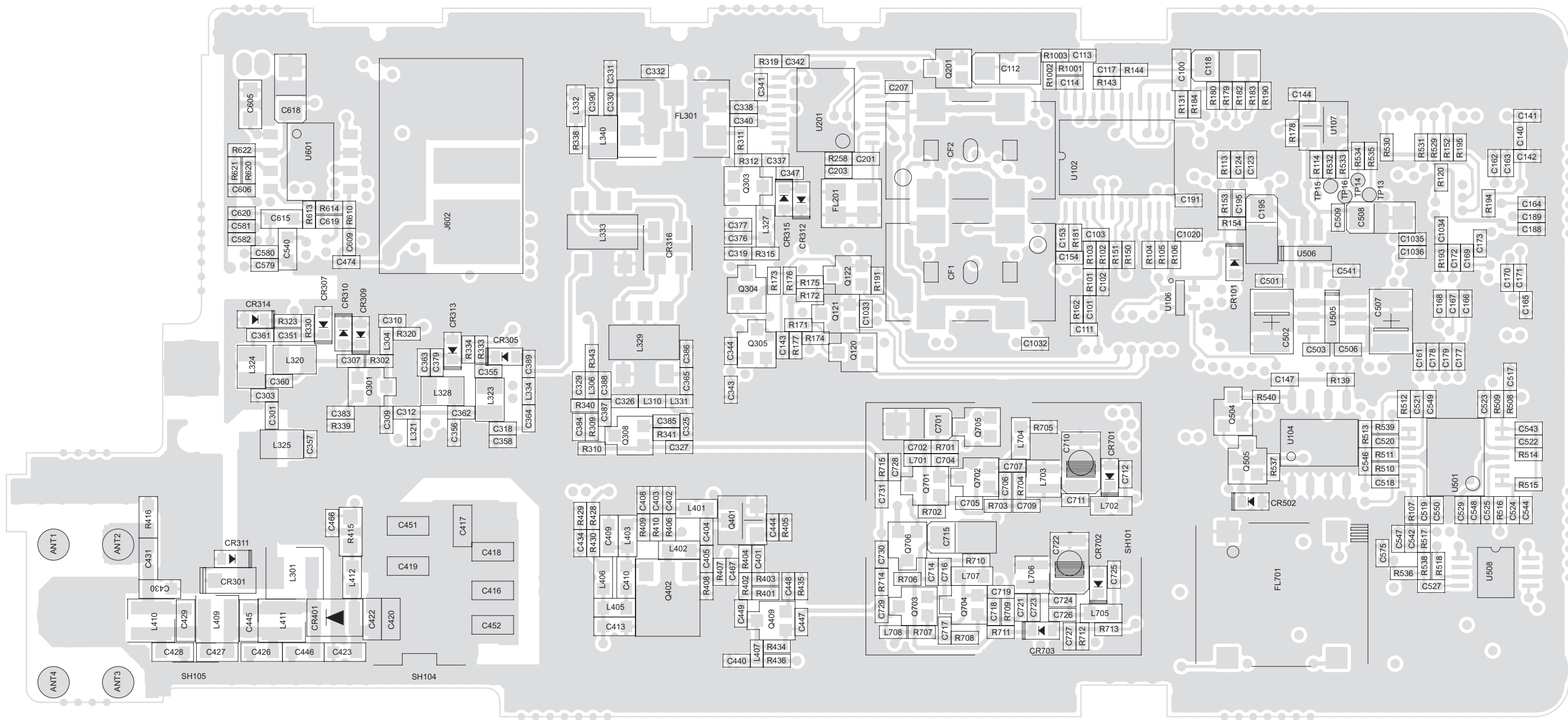


Figure 13-13. UHF1 (403–447 MHz) Mainboard Bottom Side: PCB No. E11-000996-00

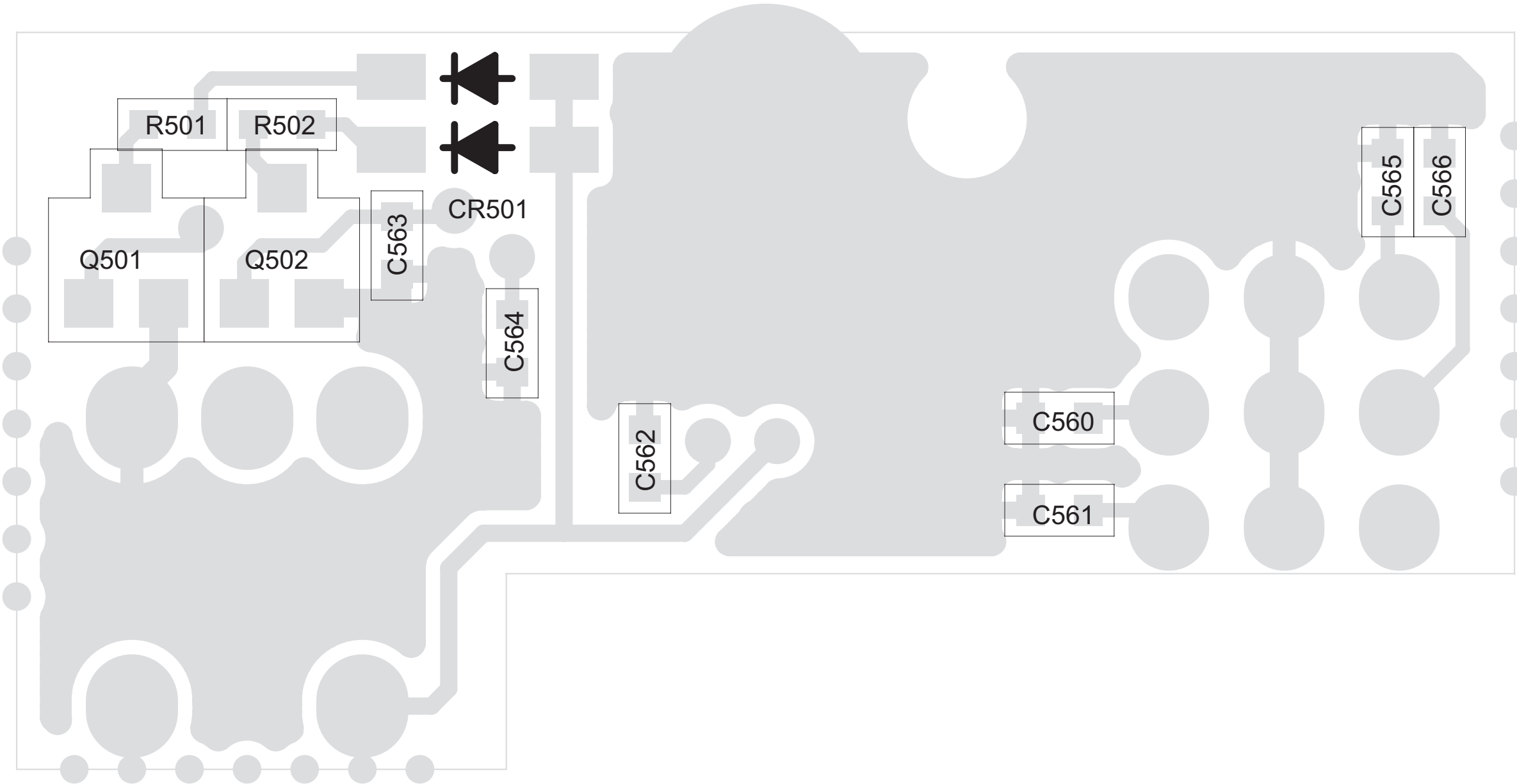


Figure 13-14. UHF1 (403–447 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

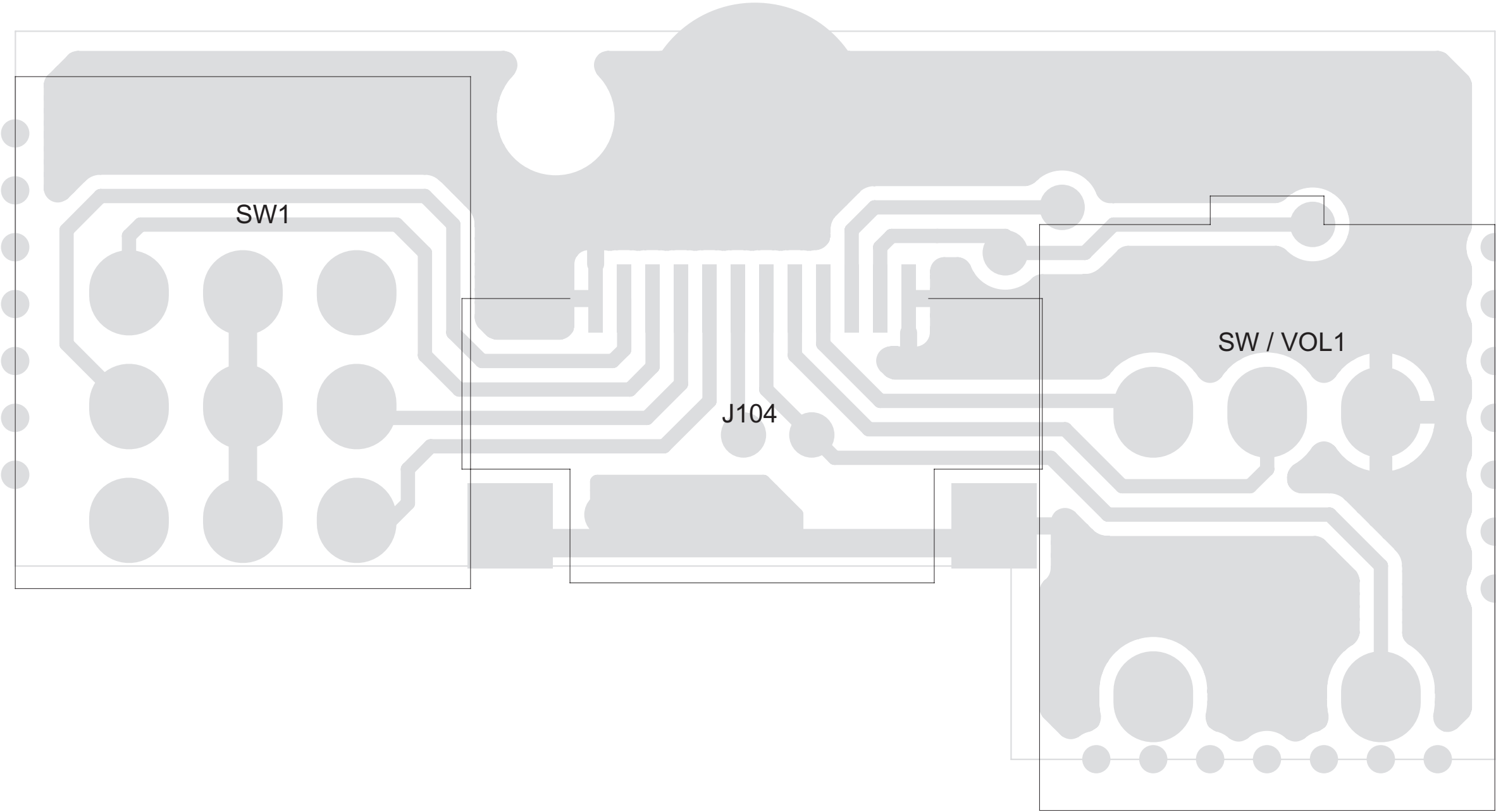


Figure 13-15. UHF1 (403–447 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

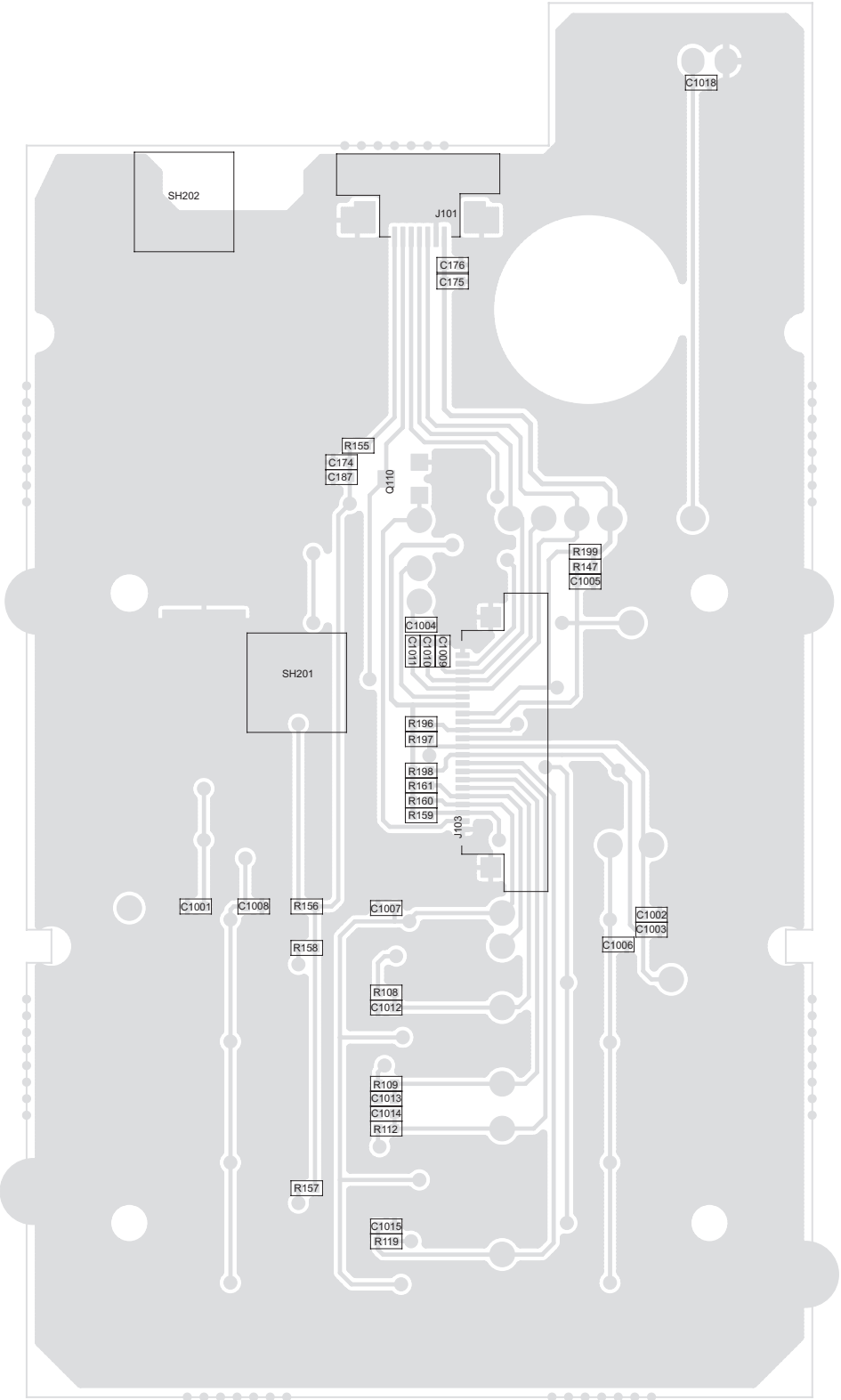
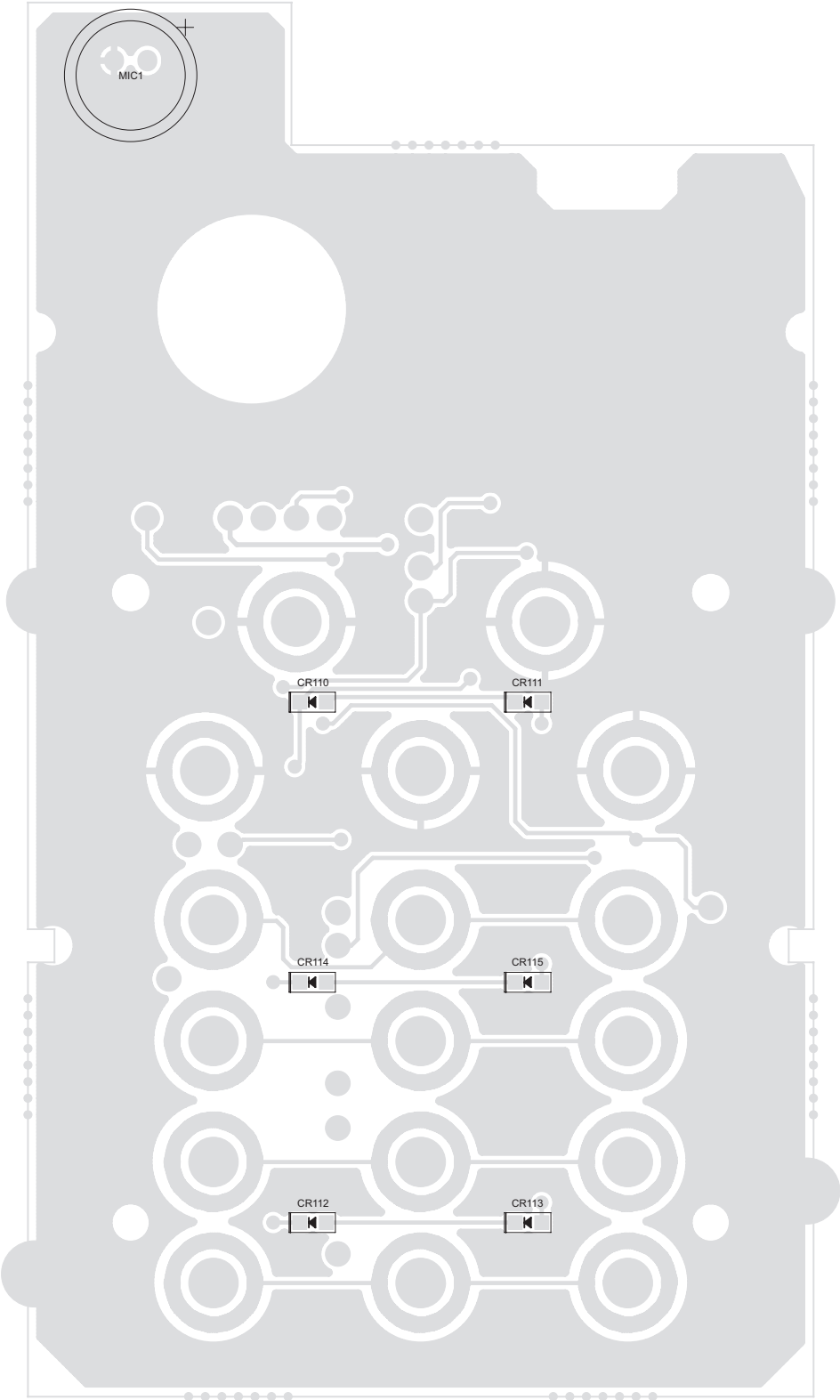


Figure 13-16. UHF1 (403–447 MHz) Keypad Board: PCB No. E11-000886-00

13.3.1 Parts List

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112 ¹	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113 ¹	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114 ¹	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115 ¹	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C123	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C161	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C165	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C166	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C167	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C168	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C170	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C171	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C176	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C177	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C178	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C179	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203 ²	TDK	E02-0303-0	Chip Cap, 1005 J 82PF
C203 ³	TDK	E02-0097-0	Chip Cap, 1005 J 120PF
C204	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C301 ²	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C301 ³	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C303	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C307	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C310	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C312 ²	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C312 ³	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C318	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C320	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C326 ²	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C326 ³	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C327 ²	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C327 ³	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C329	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C330	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C331 ²	TDK	E02-000177-00	Chip Cap, 1005 J 24PF
C331 ³	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C332 ²	MURATA	E02-0091-0	Chip Cap, 1005 J 11PF 10V
C332 ³	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C341 C341 ⁴	TDK TDK	E02-0273-0 E02-000303-00	Chip Cap, 1005 J 56PF Chip Cap, 1005 J 82PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C343	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C347	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C351	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C355	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C356	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C358 ²	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C358 ³	TDK	E02-000177-00	Chip Cap, 1005 J 24PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C361 ²	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C361 ³	TDK	E02-0125-0	Chip Cap, 1005 D 18PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C362	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C363 ²	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C363 ³	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C365	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
C376	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C378	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C379	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C383	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C385	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C386 ²	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C386 ³	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C387 ²	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C387 ³	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C388	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C390	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C404	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C405	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C406	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C409	TDK	E02-0127-0	Chip Cap, 1608J 18PF
C410 ²	TDK	E02-0223-0	Chip Cap, 1608 J 39PF
C410 ³	TDK	E02-0182-0	Chip Cap, 1608 J 27PF
C413	TDK	E02-0182-0	Chip Cap, 1608 J 27PF
C416 ²	TDK	E02-0023-0	Chip Cap, 1608 C 8PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C416 ³	TDK	NA	–
C417	TDK	E02-0023-0	Chip Cap, 1608 C 8PF
C418 ²	TDK	E02-0109-0	Chip Cap, 1608 J 15PF
C418 ³	TDK	E02-0127-0	Chip Cap, 1608J 18PF
C419	TDK	E02-0018-0	Chip Cap, 1608 J 6PF
C420	TDK	E02-0094-0	Chip Cap, 1608 J 12PF
C422	TDK	E02-0023-0	Chip Cap, 1608 C 8PF
C426	TDK	E02-0020-0	Chip Cap, 1608 D 7PF
C427 ²	TDK	E02-0012-0	Chip Cap, 1608 C 4PF
C427 ³	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C428	TDK	E02-0020-0	Chip Cap, 1608 D 7PF
C429	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C431	TDK	E02-0043-0	Chip Cap, 1608 K 1000PF
C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C436	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C445	TDK	E02-0018-0	Chip Cap, 1608 C 6PF
C446	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C451	TDK	E02-0018-0	Chip Cap, 1608 C 6PF
C452 ²	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C452 ³	TDK	E02-0223-0	Chip Cap, 1608 J 39PF
C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C454	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C461	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C474	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C502	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C507	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C508	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C511	HITACHI	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C516	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C522 ²	TDK	E02-0308-0	Chip Cap, 1005 K 822PF
C522 ³	TDK	E02-0118-0	Chip Cap, 1005 K 153PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C525 ²	TDK	E02-0213-0	Chip Cap, 1005 K 332PF
C525 ³	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C539	HITACHI	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C543 ²	TDK	E02-0308-0	Chip Cap, 1005 K 822PF
C543 ³	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C545	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C551	HITACHI	E02-0347-0	Chip Tantal, 10uF-M/10V(A)
C560	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C561	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C562	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C563	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C566	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C571	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C618	HITACHI	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)
C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF
C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF
C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C701	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)

Circuit Ref.	Supplier	Supplier Part No.	Description
C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C705	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C706	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C707	TDK	E02-0125-0	Chip Cap, 1005 D 18PF
C709	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C711	MURATA	E02-0907-0	Chip Cap, 1005 J 16PF 10V
C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C714	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C715	HITACHI	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C724	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C726	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C728	TDK	E02-0013-0	Chip Cap, 1005 C 3PF
C729	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C731	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C751	HITACHI	E02-0339-0	Chip Tantal, 1uF-M/35V(A)
C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C753	PANASONIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C754	PANASONIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C1001	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1002	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1003	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1004	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1005	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1006	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1007	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1015	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C1018	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
CF1 CF1 ⁴	BGTech BGTech	E17-0003-0 E17-000057-00	Ceramic Filter, ELFY455F CQ, Ceramic Filter, LTWC455F
CF2 CF2 ⁴	BGTech BGTech	E17-0004-0 E17-000058-00	Ceramic Filter, ELFY455H CQ, Ceramic Filter, LTWC455H
CR110	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR111	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR112 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR113 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR114 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR115 ¹	BRIGHT LED	E07-0021-0	CHIP LED, BL-HG036D-TR
CR116	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR117	KEC	E06-0004-0	DIODE, KDS-160E (ESM)
CR201	KEC	E06-0005-0	DIODE, KDS 181
CR202	KEC	E06-0005-0	DIODE, KDS 181
CR301	KEC	E06-0002-0	DIODE, KDS-114

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
CR305	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	J103	BGTech	E10-0171-0	FPC CONNECTOR, 04-6292-022-000-800+	L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
CR306	KEC	E06-0004-0	DIODE, KDS-160E (ESM)	J104	BGTech	E10-0169-0	FPC CONNECTOR, XF2M-1215-1A	L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
CR307	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	J105	BGTech	E10-0349-0	FPC CONNECTOR, 52745-1297	L409	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
CR309	KEC	E06-0001-0	DIODE, KDS-114E (ESM)	J601	BGTech	E10-0014-0	SPK MIC JACK, 0980683Z01-D	L410	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
CR310	KEC	E06-0001-0	DIODE, KDS-114E (ESM)	J602	BGTech	E10-0081-0	BATTERY CONNECTOR, 060031MA005G500PL	L411	DAERIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
CR312	KEC	E06-0004-0	DIODE, KDS-160E (ESM)	J603	BGTech	E10-0099-0	CONNECTOR, 53047-0210	L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
CR313	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	L301	DAERIM	E03-0063-0	Coil Air, 0.45-1.4-5TL	L413	DAERIM	E03-0051-0	Coil Air, 0.35-1.6-7TL
CR314	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N	L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR315	KEC	E06-0004-0	DIODE, KDS-160E (ESM)	L306	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH	L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR316	AGILENT	E06-0159-0	SCHOTTKY DIODE, HSMS-2829	L310	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N	L603	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T	L320	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)	L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR501	BRIGHT LED	E07-0041-0	CHIP LED, BL-HEIG033B-TR	L323	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)	L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR701	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	L324	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)	L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
CR702	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	L325	DELTA	9270022111820	Chip Ind, 2012 220NH G (Tolerance 2%)	L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
CR703	KEC	E06-0065-0	VARICAP DIODE, KDV-154E (ESM)	L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH	L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
DEC1	BGTech	E17-0038-0	Discriminator, JTBC455C24(LCP)	L328	DELTA	9270027011820	Chip Ind, 2012 27NH G (Tolerance 2%)	L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
FL101	BGTech	E08-0135-0	Crystal, 7.3728MHz (H : 2.8mm) : Rev02	L329	BGTech	E03-0185-0	Balun Trans,#617PT-1667	L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
FL102	BGTech	E08-0036-0	Crystal, 3.5795MHz (H : 2.8mm)	L331	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N	L706	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
FL201	BGTech	E08-0043-0	Crystal, 44.645MHz (SMD)	L332	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J	L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
FL301	BGTech	E17-0026-0	Crystal Filter, MCF 45.15S12.B (8.5KHz)	L333	BGTech	E03-0185-0	Balun Trans,#617PT-1667	L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
FL701	BGTech	E08-0055-0	VCTCXO, 12.8 MHZ	L334	TAIYOYUDEN	E03-0163-0	Chip Ind, 1005 J 8.2nH	L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
J101	BGTech	E10-0167-0	FPC CONNECTOR, 05004HR-07C01S(G)	L340	TAIYOYUDEN	E03-0180-0	Chip Ind, 1608 K 820NH	MIC1	BGTech	E19-0009-0	C-MIC, 6.0*2.7/2.2KΩ,2V,-44±3dB, Pin type
J102	BGTech	E10-0173-0	FPC CONNECTOR, 05004HR-22A01S	L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH	PB501	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
				L402	TAIYOYUDEN	E03-0108-0	Chip Ind, 1608 J 22nH	PB502	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
				L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ	PB503	BGTech	E09-0030-0	Tack Switch, EVQPUD02K
				L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH	Q101	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
								Q102	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
								Q103	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor
								Q104	KEC	E05-0061-0	KRC 413 KEC BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q110	KEC	E05-0015-0	KRC 101S KEC BJT NPN Transistor
Q111	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q112	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q113	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q114	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q120	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q121	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q122	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q201	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q202	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q206	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q301	HITACHI	E05-0065-0	2SC4901 HITACH BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q308	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
Q405	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q406	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q407	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q408	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q409	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q501	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q502	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q503	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q504	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q505	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q601	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q602	KEC	E05-0032-0	KRC 404 KEC BJT NPN Transistor
Q701	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q702	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q703	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q704	NEC	E05-0054-0	2SC4226 NEC BJT NPN Transistor
Q705	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q706	KEC	E05-0028-0	KRA 305 KEC BJT PNP Transistor
Q707	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q708	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q709	KEC	E05-0043-0	KTA 2014 KEC BJT PNP Transistor
Q710	KEC	E05-0050-1	KTC 4075 KEC BJT NPN Transistor
Q711	KEC	E05-0027-0	KRA 304 KEC BJT PNP Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R133	KAMAYA	E01-0362-0	Chip Res, 1005 J 680KΩ
R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ
R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R147	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KΩ
R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R155	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R156	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R160	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R176	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R177	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ
R204 R204 ⁴	KAMAYA KAMAYA	E01-0178-0 E01-0218-0	Chip Res, 1005 J 22KΩ Chip Res, 1005 J 3KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R206 R206 ⁴	KAMAYA KAMAYA	E01-0056-1 E01-0218-0	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 3KΩ
R207 R207 ⁴	KAMAYA KAMAYA	E01-0178-0 E01-0056-1	Chip Res, 1005 J 22KΩ Chip Res, 1005 J 10KΩ
R208 R208 ⁴	KAMAYA KAMAYA	E01-0085-0 E01-000386-00	Chip Res, 1005 J 12KΩ Chip Res, 1005 J 8.2KΩ
R210	KAMAYA	E01-0089-1	Chip Res, 1005 J 120KΩ
R211	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R212 R212 ⁴	KAMAYA KAMAYA	E01-0295-1 E01-000205-00	Chip Res, 1005 J 47KΩ Chip Res, 1005 J 27KΩ
R213 R213 ⁴	KAMAYA KAMAYA	E01-0238-0 E01-000025-01	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 0Ω
R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R217 R217 ⁴	KAMAYA KAMAYA	E01-0056-1 E01-0218-0	Chip Res, 1005 J 10KΩ Chip Res, 1005 J 3KΩ
R220	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R230 ⁴	KAMAYA	E01-000047-00	Chip Res, 1005 J 1KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R258	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R309	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R310 ²	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KW
R310 ³	KAMAYA	E01-0238-0	Chip Res, 1005 J 3.3KΩ
R311	KAMAYA	E01-0234-1	Chip Res, 1005 J 330Ω
R312 ²	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R312 ³	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R317	KAMAYA	E01-0143-0	Chip Res, 1005 J 180KΩ
R318 R318 ⁴	KAMAYA KAMAYA	E01-0201-0 E01-000172-01	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 2.2KΩ
R319 R319 ⁴	KAMAYA KAMAYA	E01-0201-0 E01-000238-00	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 3.3KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R320 ²	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R320 ³	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R339	KAMAYA	E01-0146-0	Chip Res, 1005 J 1Ω
R341	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R342 R342 ⁴	KAMAYA KAMAYA	E01-0289-1 E01-000338-00	Chip Res, 1005 J 4.7KΩ Chip Res, 1005 J 6.2KΩ
R343	TAIYOYUDEN	E03-0308-0	Chip Ind, 1005 K 2R2
R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω
R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R405	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R406	KAMAYA	E01-0165-0	Chip Res, 1005 J 22Ω
R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220Ω
R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ
R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω
R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R423	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R427	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R501	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R502	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 KΩ
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R507	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
R516 ²	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R516 ³	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R517 ²	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KΩ
R517 ³	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 KΩ
R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R538 ²	KAMAYA	E01-0352-0	Chip Res, 1005 J 6.8KΩ
R538 ³	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390KΩ	R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	SH202	Motorola	PMDN4152AR	Finger Strip - Single
R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω	R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ	SW1	BGTech	E09-000048-00	CH SWITCH, RY-8650
R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ	SW/VOL1	BGTech	E01-1032-0	Switch Volume, RY-8418
R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ	U101	BGTech	E04-0046-0	PU IC, M3030RFCPGP
R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	U102	BGTech	E04-0114-0	AUDIO LSI, AK2347
R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ	R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ	U103	BGTech	E04-0265-0	DTMF RECEIVER, MT88L70 ANR1
R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	U104	BGTech	E04-0097-0	EEPROM IC, 24LC64
R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω	R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	U105	JRC	E04-0185-0	OP AMP, NJM324 V
R701	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω	R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω	U106	BGTech	E04-0211-0	Analog SW IC, TC7S66FU
R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ	R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	U107	KEC	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ	R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	U201	BGTech	E04-0195-0	FM IC, TA31136
R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ	R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	U201 ⁴	BGTech	E04-000890-00	AGAMEM, FM IC, AA32416
R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	U202	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω	R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ	U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358 F
R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ	R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	U402	BGTech	E04-0262-0	DIGITAL POTENTIOMETER, MCP4011(502)
R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ	R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ	U501	JRC	E04-0185-0	OP AMP, NJM324 V
R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8KΩ	R1003 ²	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ	U502	JRC	E04-0185-0	OP AMP, NJM324 V
R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω	R1003 ³	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	U505	BGTech	E04-0150-0	REGULATOR IC, TK11250CMCL-G
R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ	U506	BGTech	E04-0588-0	REGULATOR IC, TK11233CMCL-G
R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ	R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	U507	BGTech	E04-0207-0	VOLTAGE DOUBLER, TC1240
R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ	RT201 ⁵	TAIYO YUDEN	E01-0478-0	Thermistor, 103K	U508	BGTech	E04-0263-0	DIGITAL POTENTIOMETER, MCP4011(503)
R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω	RT202 ⁴	TAIYOYUDEN	E01-001138-00	Thermistor, 102K	U601	BGTech	E04-0109-0	AUDIO AMP,TDA8541
R715	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω	RT501	TAIYO YUDEN	E01-0478-0	Thermistor, 103K	U701	BGTech	E04-0024-0	PLL IC, MB15E03SLPFV1-G-BND-EF-6
R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300Ω	SH101	BGTech	M06-0163-0	Shield Can - Vco,SPCC (0.3t),18.8x20.4(Inner),H=3,Drawing type	PCB1	BGTech	E11-0763-0	Main PCB, FR4 4 Layer PCB Rev.#MP02
R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω	SH102	BGTech	M06-0173-0	Shield Can Tcxo, C5210P (0.3t),18.4x21(Inner),H=2.5	PCB1 ⁴	BGTech	E11-000996-00	Main PCB, FR4 4 Layer PCB Rev.#MP03
R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5KΩ	SH103	BGTech	M06-0268-0	Pa Shield Can,C5210P(0.3t), 9X11.6(outer), H=2.1	SUB PCB1	BGTech	E11-000002-02	Sub PCB, 1.2T 2Layer
R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ	SH104	Motorola	PMDN4150AR	Finger Strip, T PCB				
R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω	SH105	Motorola	PMDN4149AR	Finger Strip, TX				
R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω	SH201	Motorola	PMDN4151AR	Finger Strip - Pair				
R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ								
R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ								
R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390Ω								

Circuit Ref.	Supplier	Supplier Part No.	Description
KEY PCB1	BGTech	E11-000886-00	Key PCB, 1.2T 2Layer

Note:

- 1. Not for PMUE3323AAE & PMUE3327AAE Model
- 2. For PMUE3326AAE & PMUE3327AAE Model
- 3. For PMUE3322AAE & PMUE3323AAE Model
- 4. Only for PCB No. *E11-000996-00*
- 5. Not applicable for PCB No. *E11-000996-00*

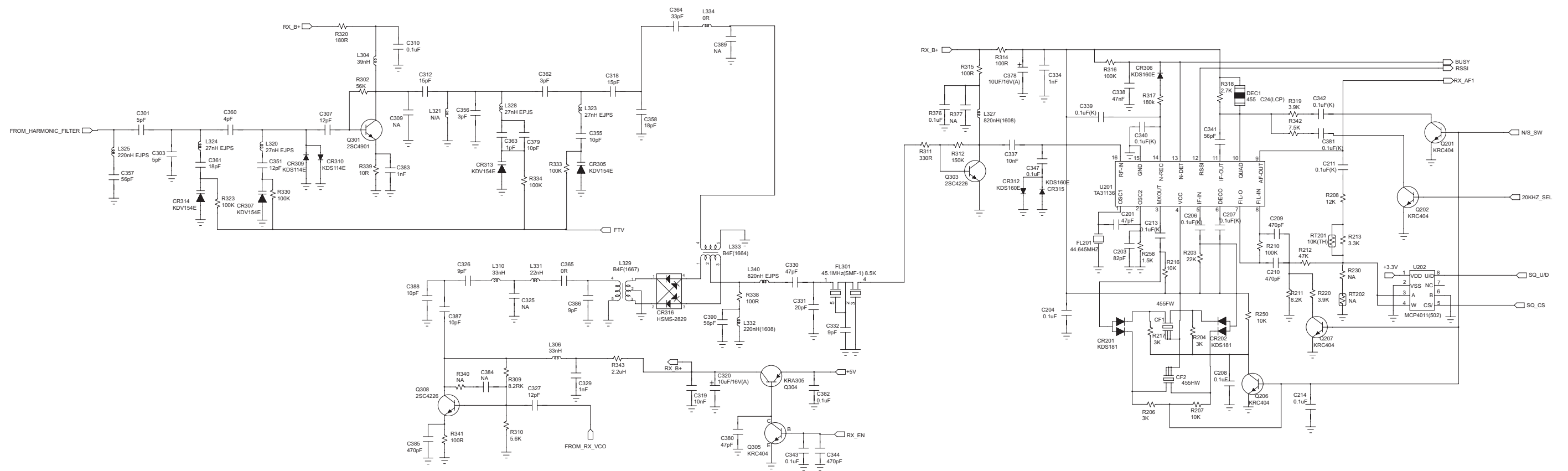
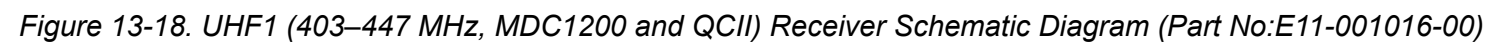


Figure 13-17. UHF1 (403–447 MHz, MDC1200 and QCII) Receiver Schematic Diagram (Part No:E11-000946-00)



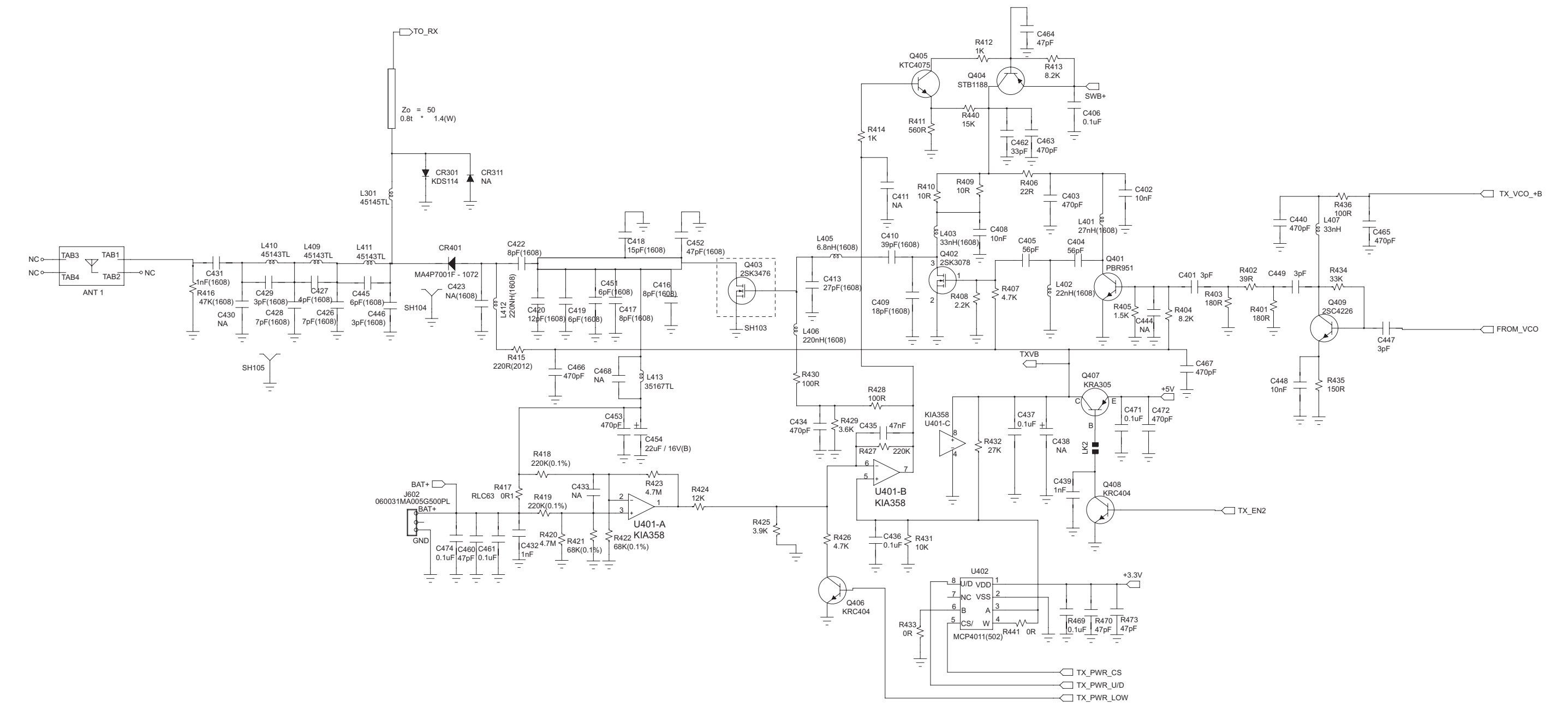
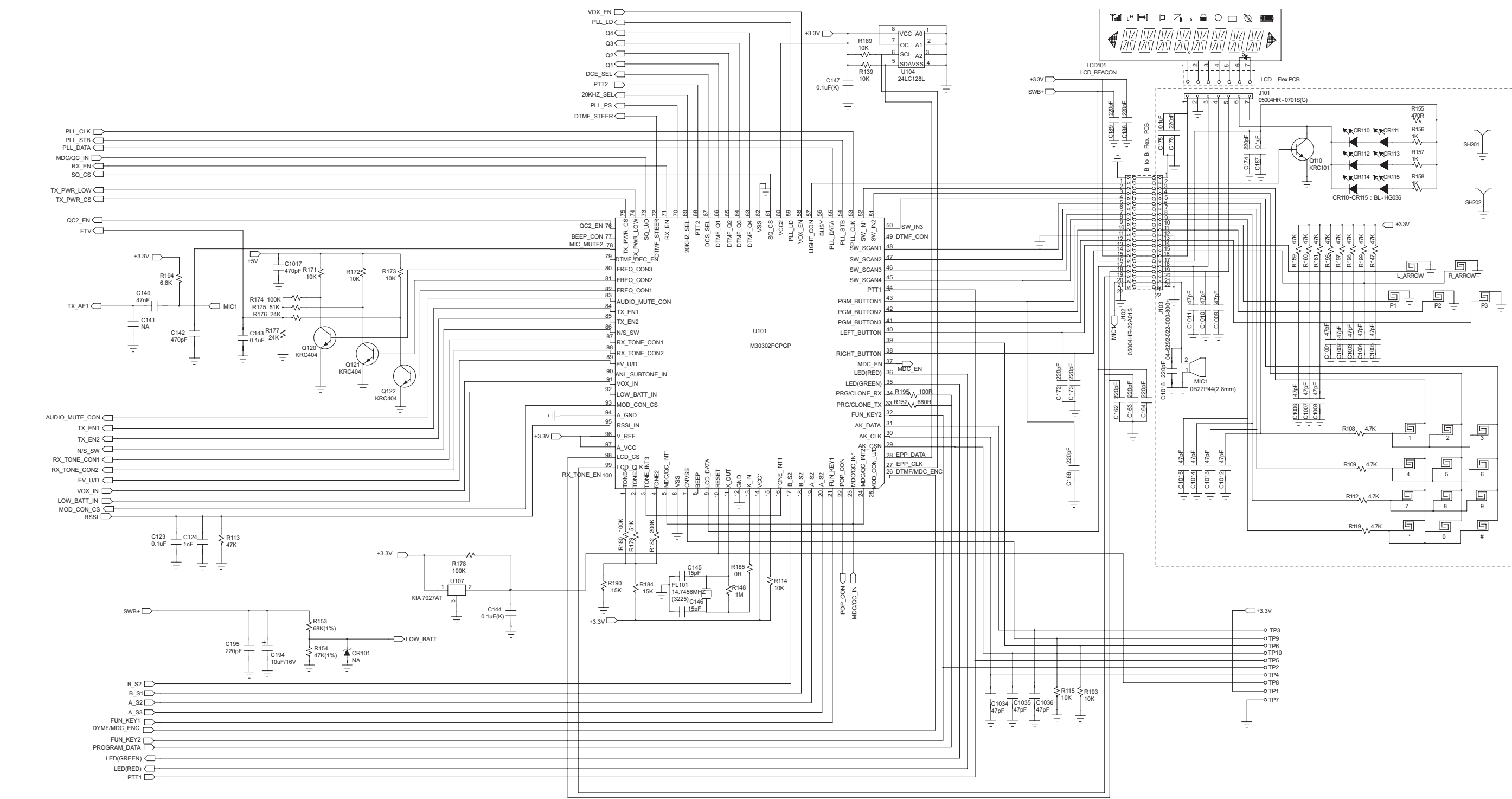


Figure 13-19. Transmitter (MDC1200 and QCII) Schematic Diagram



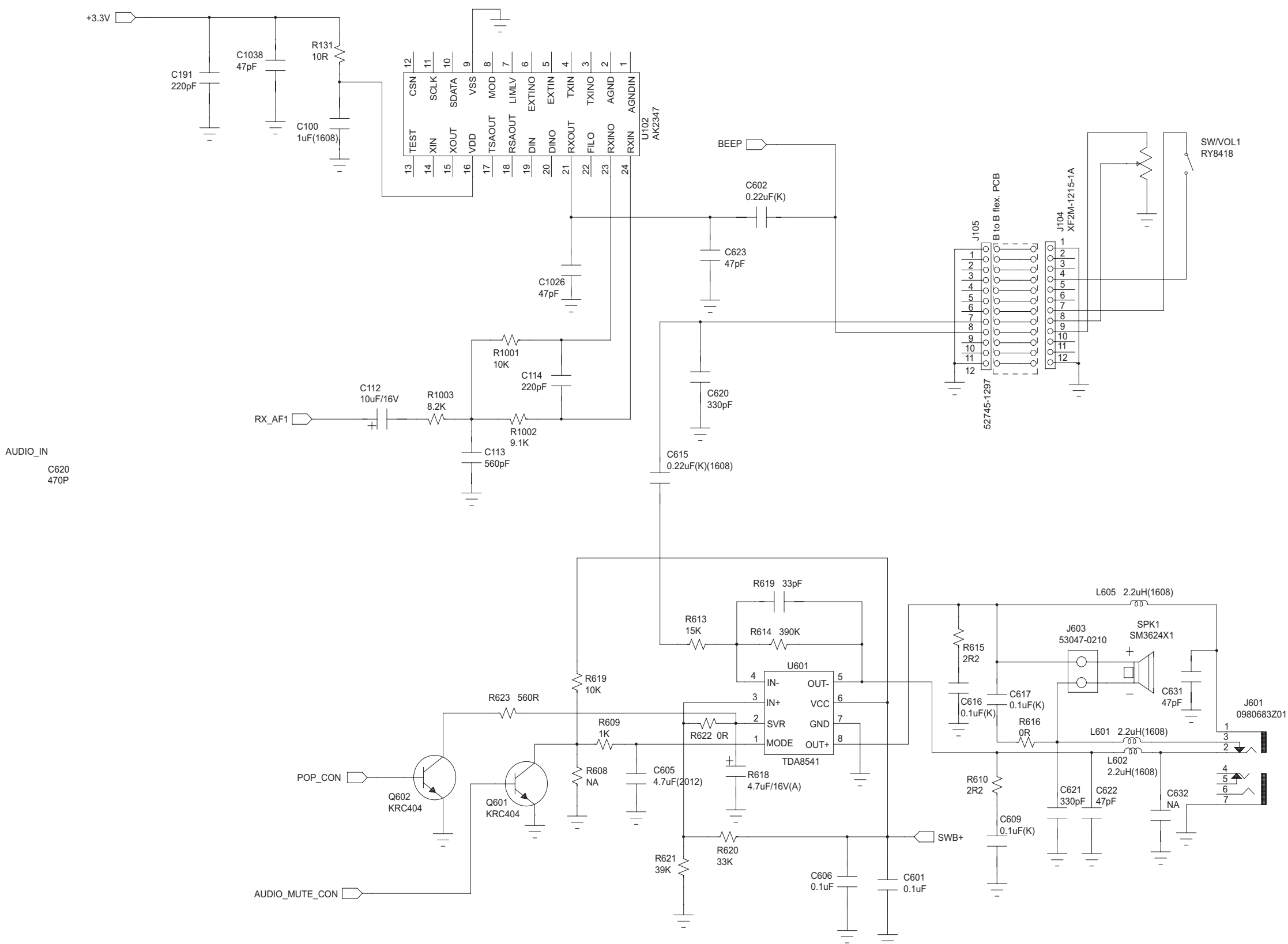


Figure 13-21. Audio Power Amplifier and External Audio (MDC1200 and QCII) Schematic Diagram

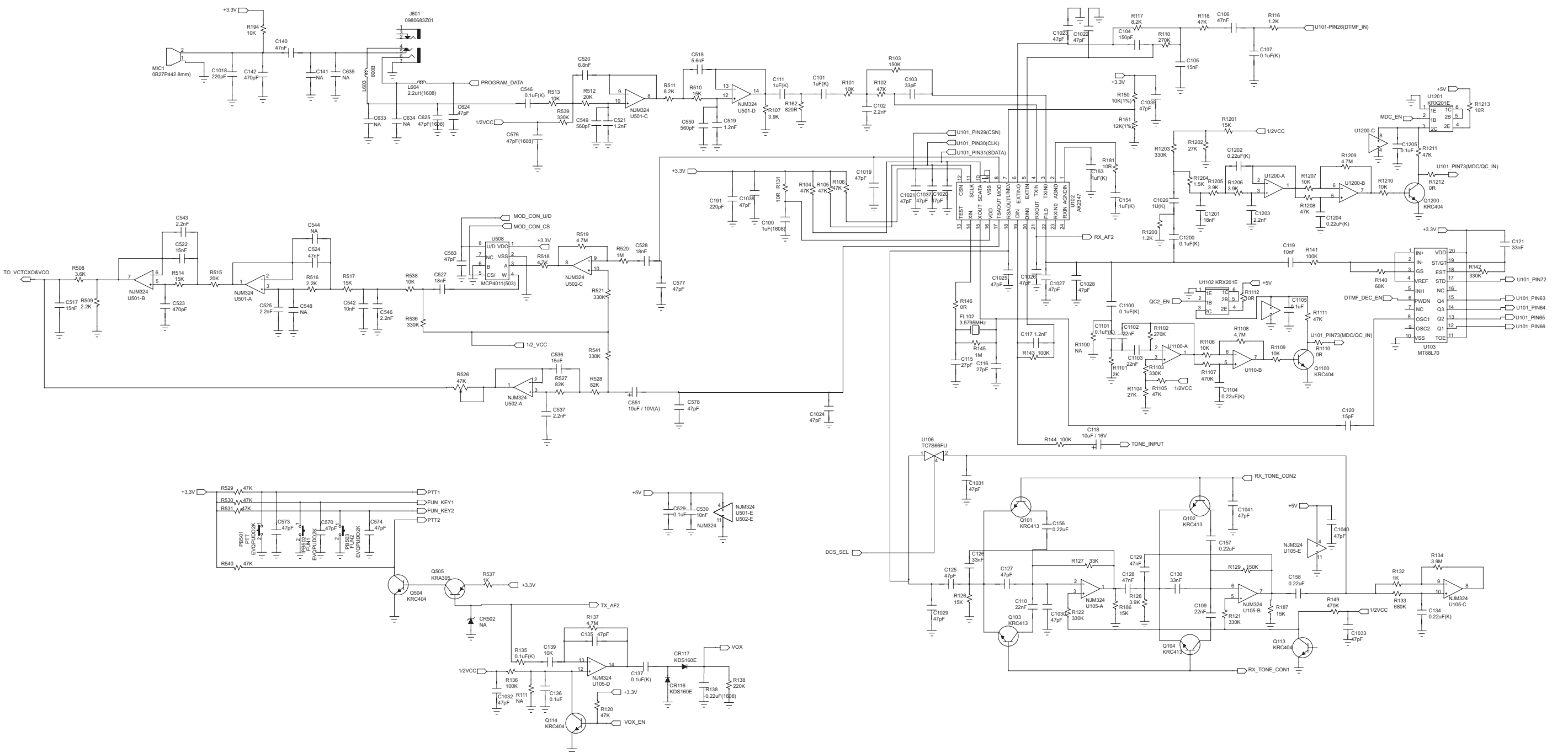


Figure 13-23. Transmitter Audio Filter and Sub-tone (MDC1200 and QCII) Schematic Diagram

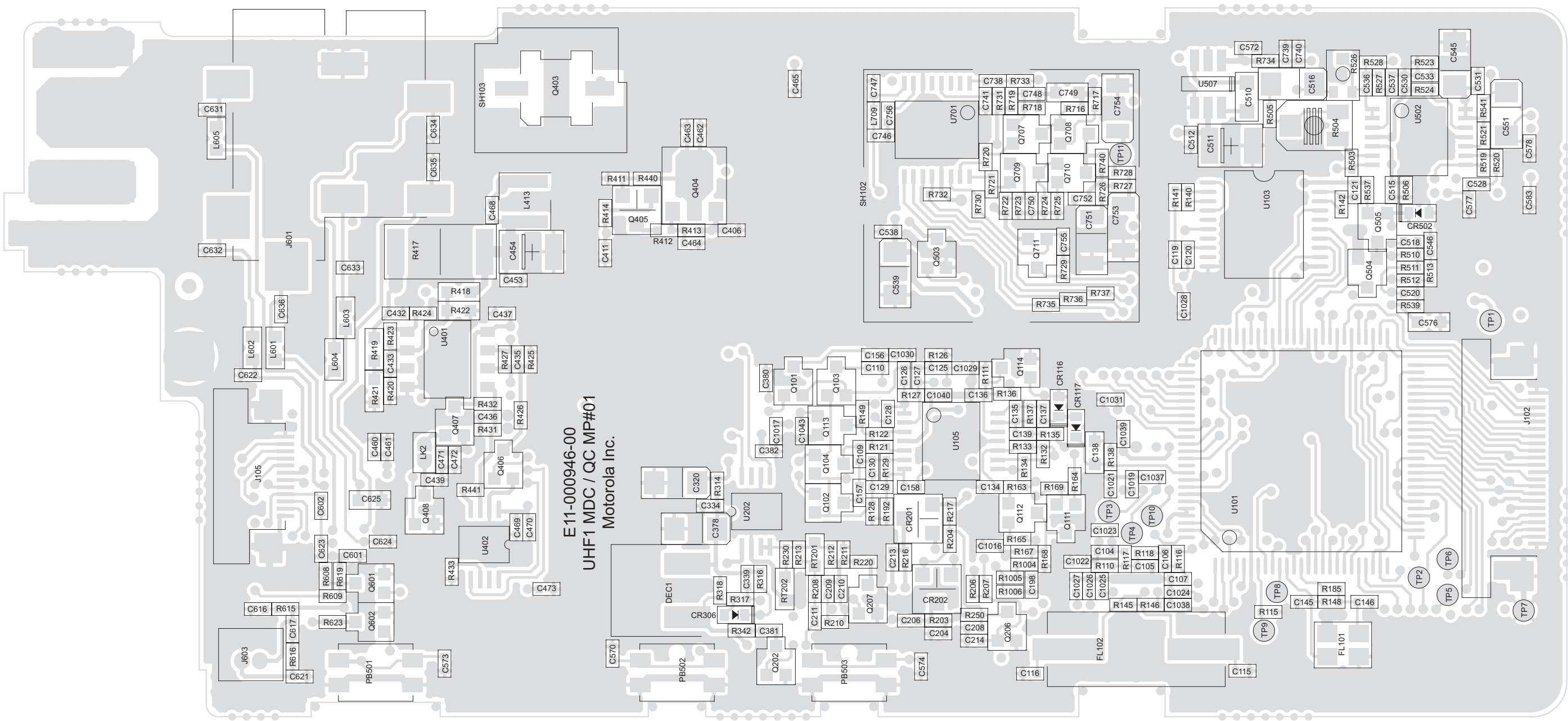


Figure 13-24. UHF1 (403–447 MHz) Mainboard Top Side: PCB No. E11-00946-00

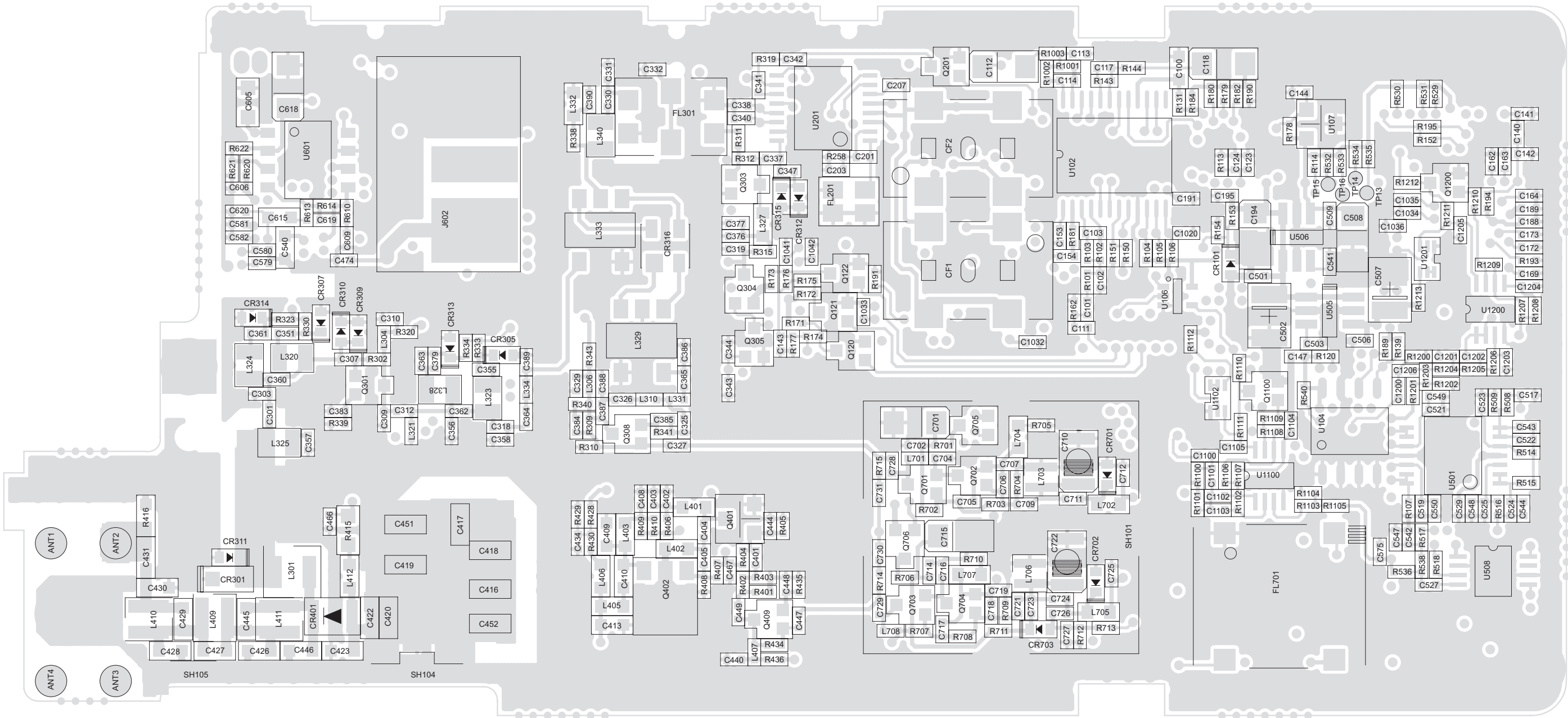


Figure 13-25. UHF1 (403–447 MHz) Mainboard Bottom Side: PCB No. E11-00946-00

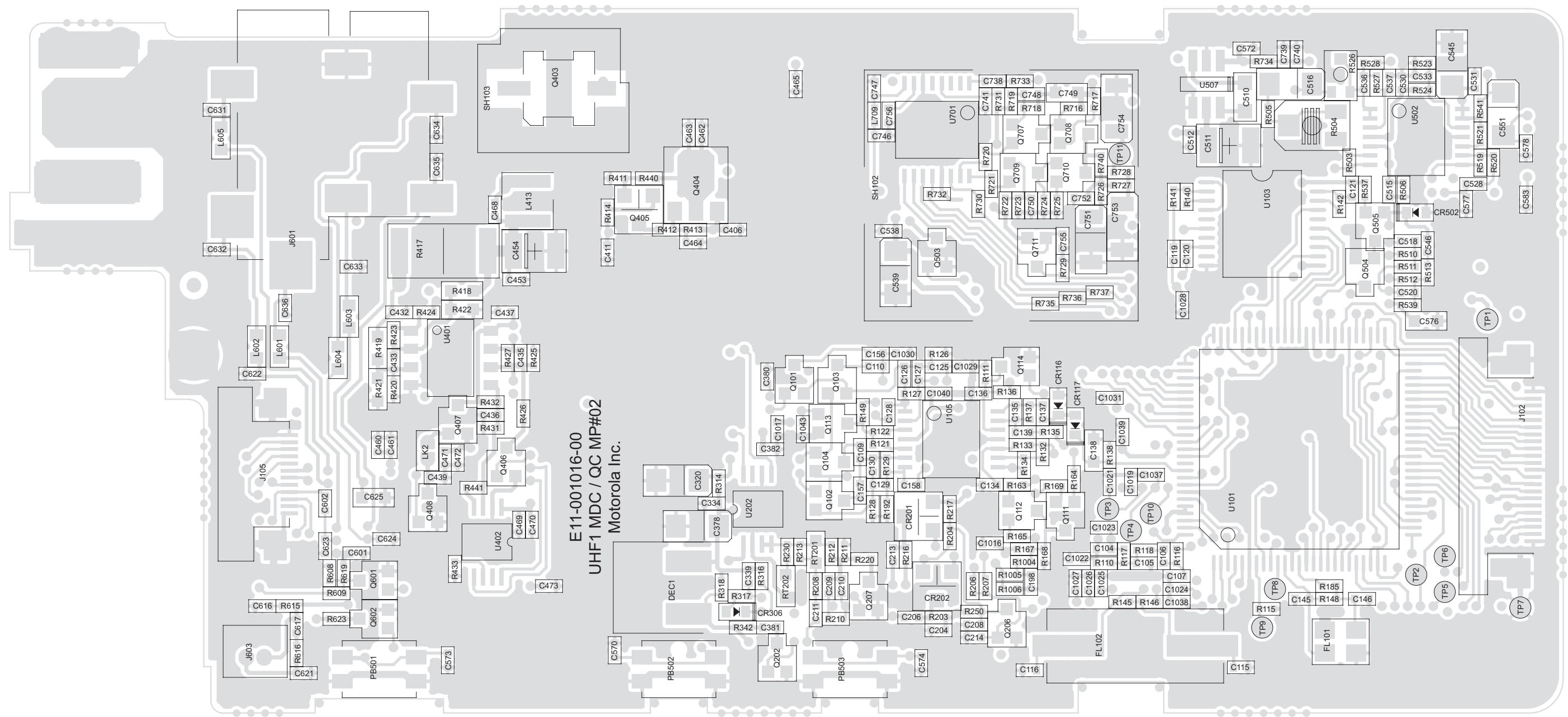


Figure 13-26. UHF1 (403–447 MHz) Mainboard Top Side: PCB No. E11-001016-00

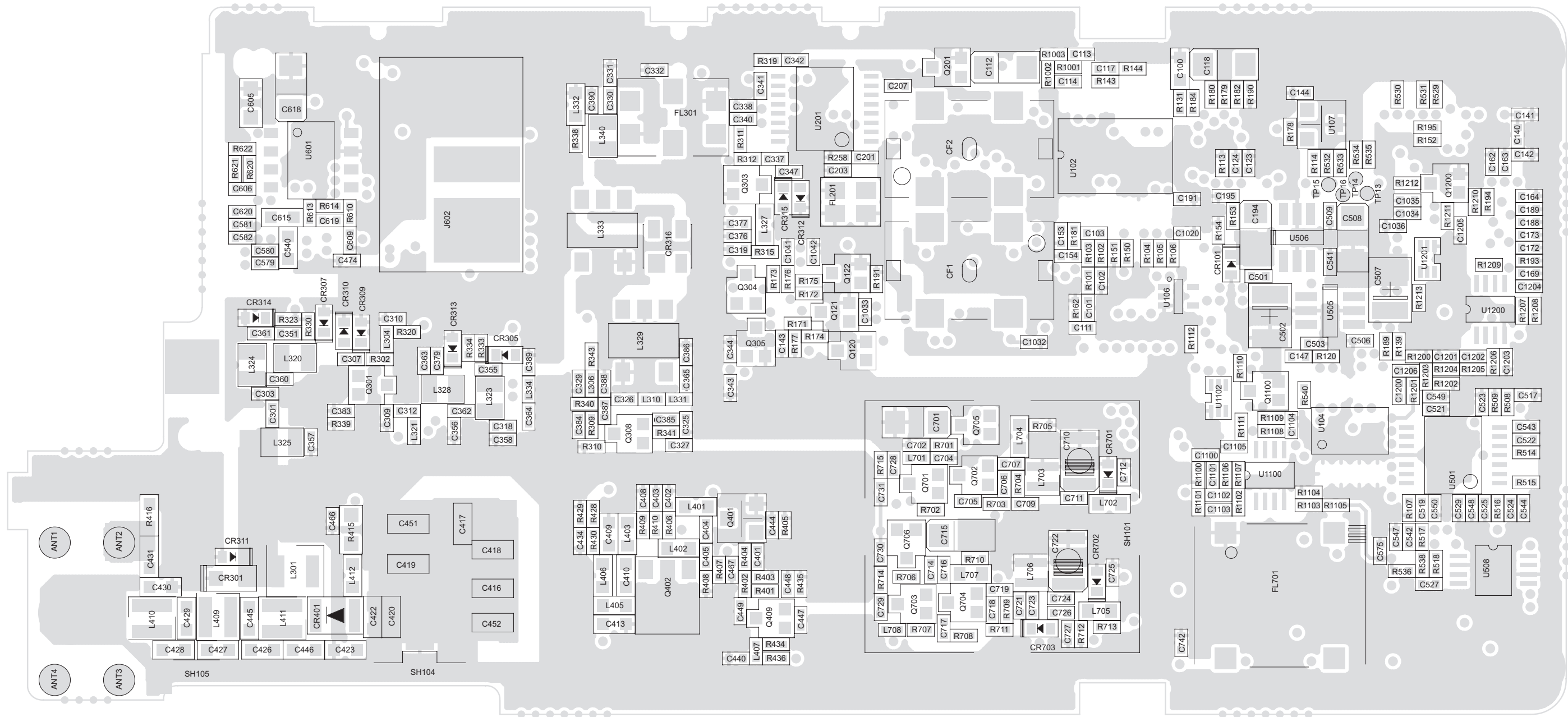


Figure 13-27. UHF1 (403–447 MHz) Mainboard Bottom Side: PCB No. E11-001016-00

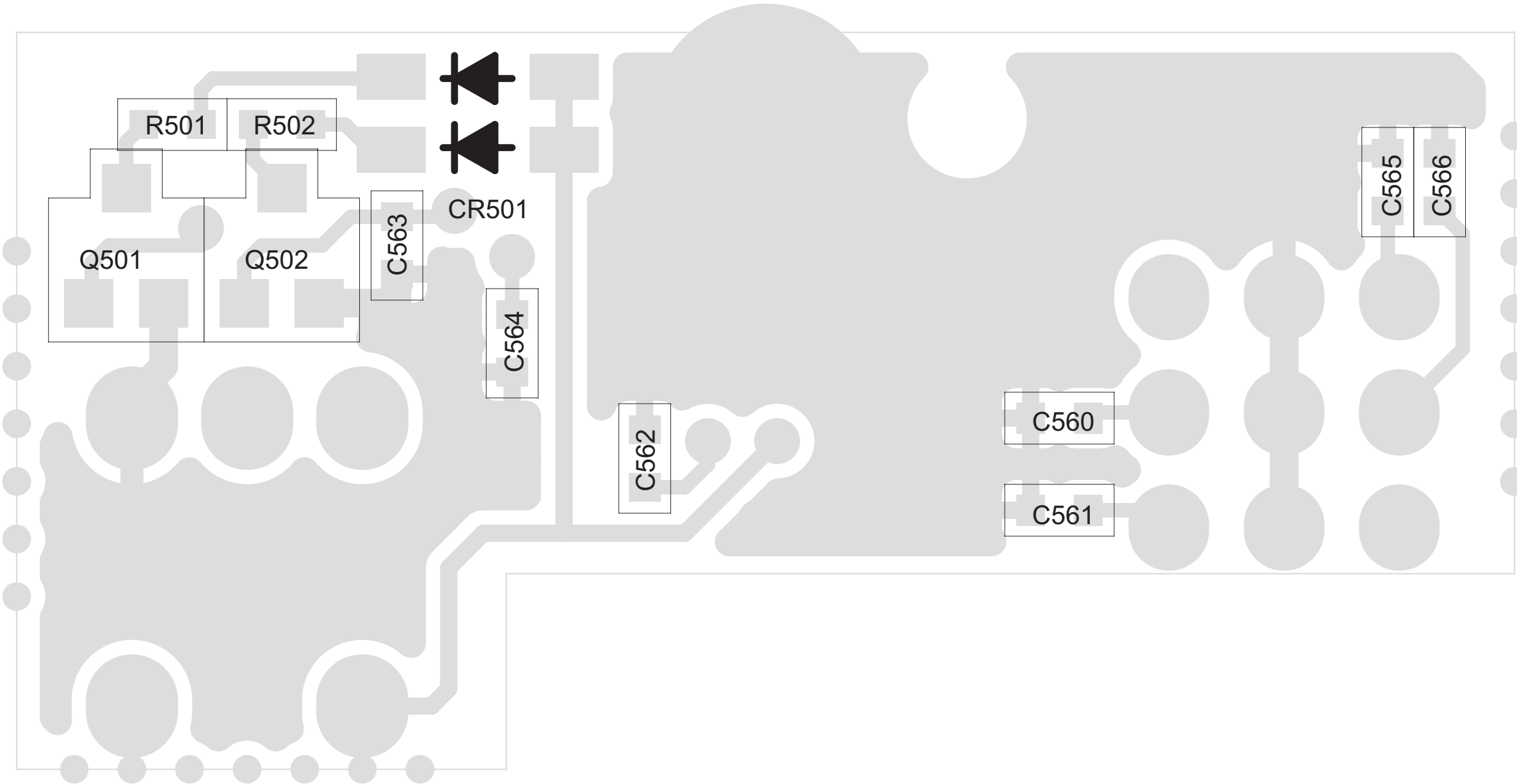


Figure 13-28. UHF1 (403–447 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

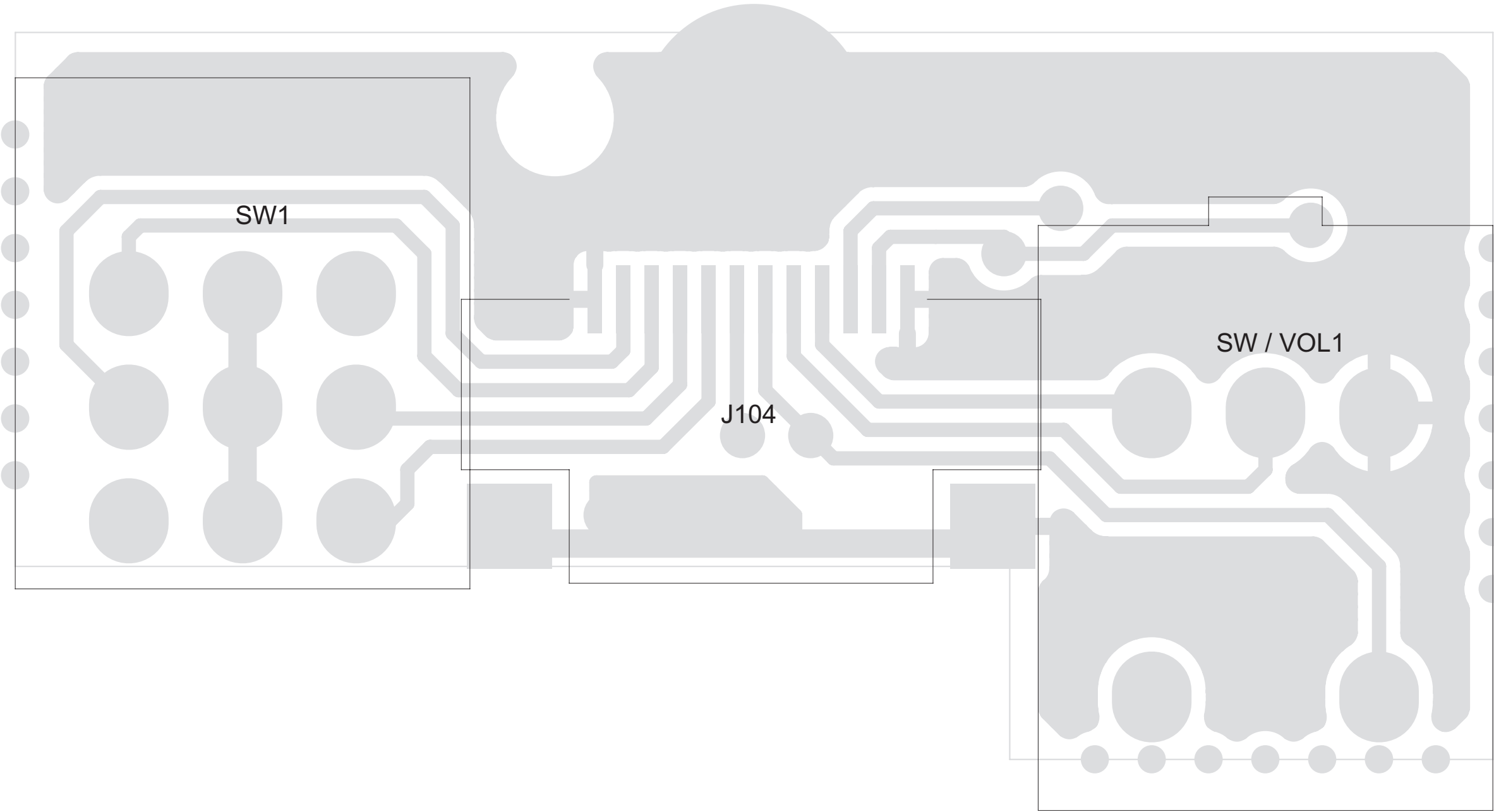


Figure 13-29. UHF1 (403–447 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

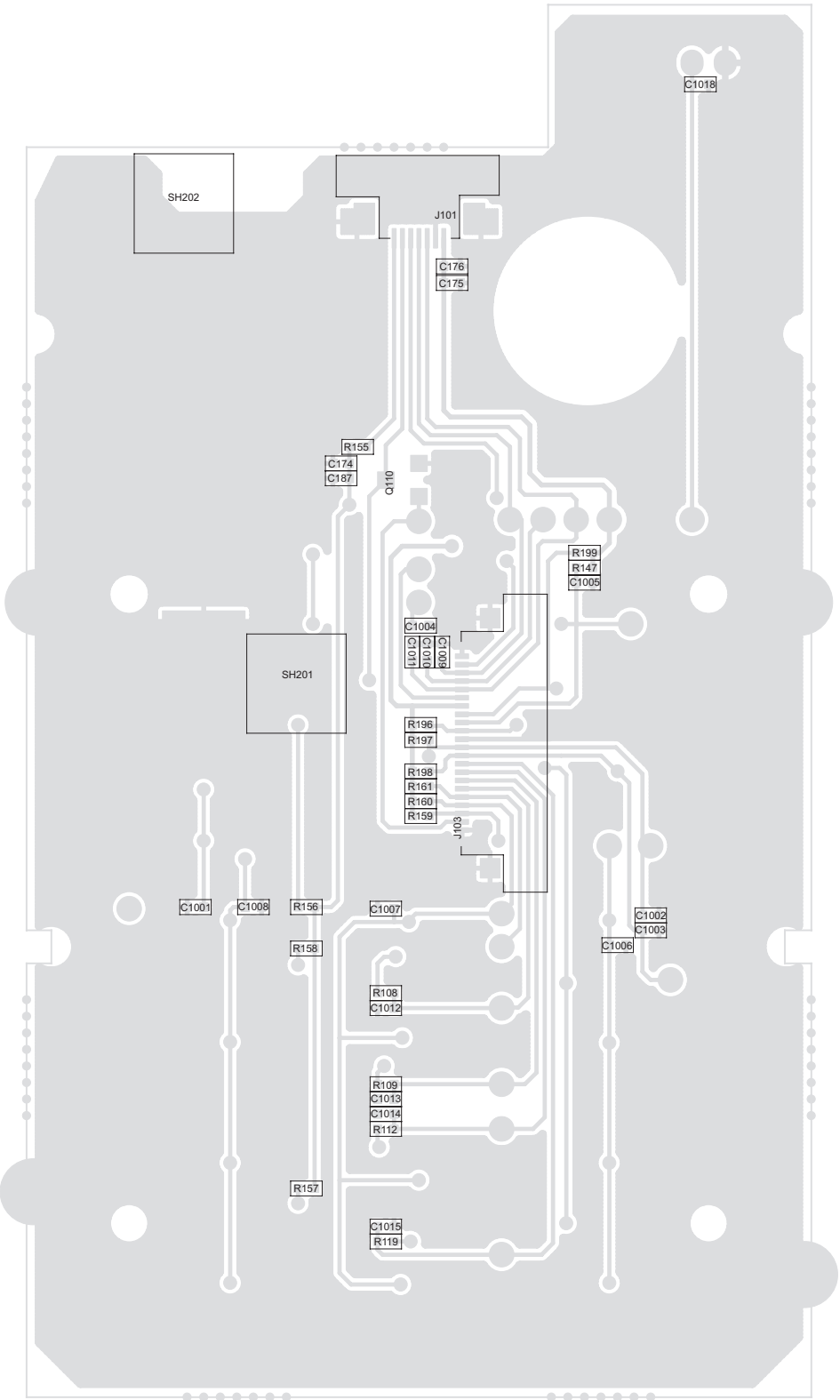
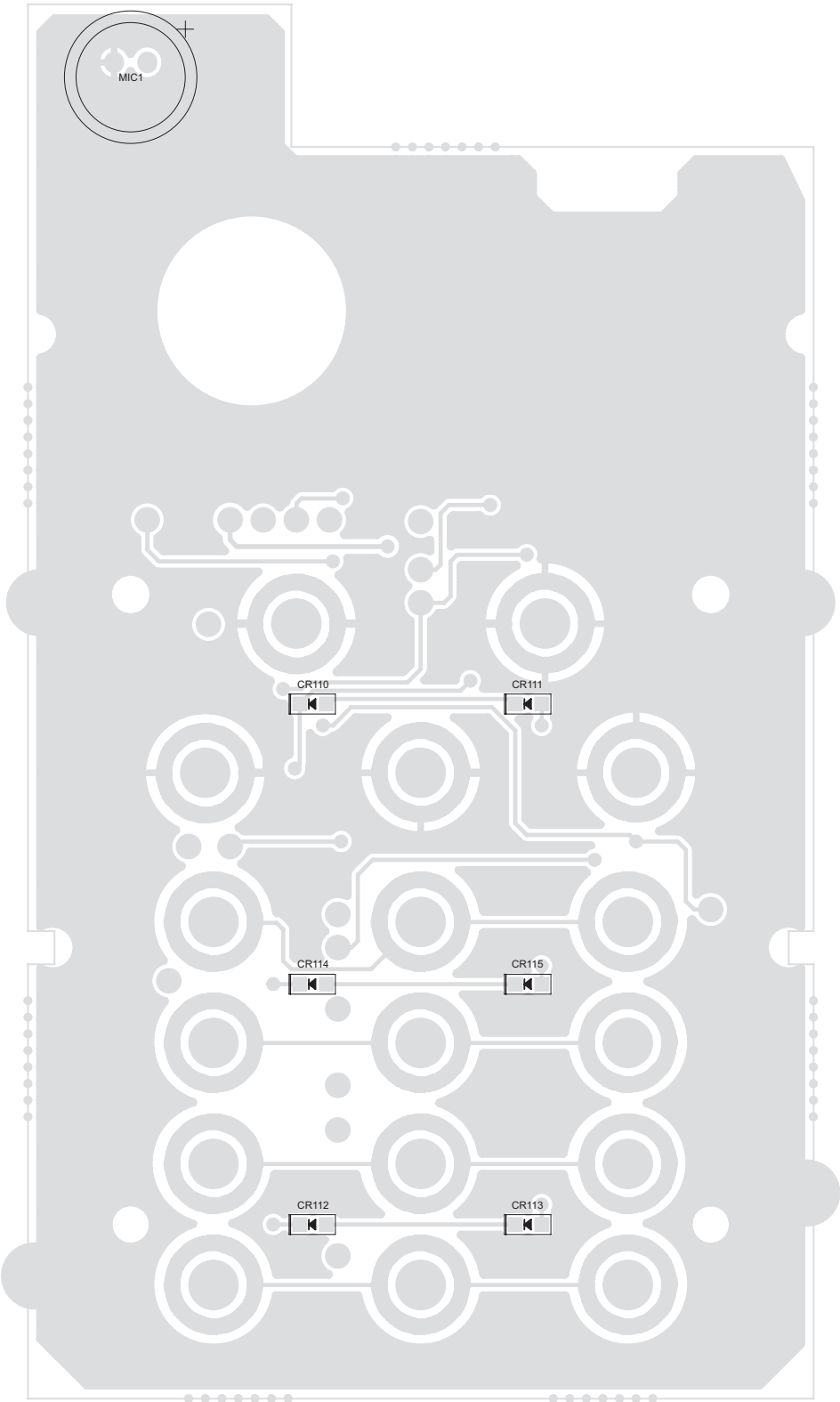


Figure 13-30. UHF1 (403–447 MHz) Keypad Board: PCB No. E11-000886-00

13.4.2 Parts List (MDC 1200 and QCII)

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C123	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0303-0	Chip Cap, 1005 J 82PF
C204	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C208	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C301	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C303	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C307	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C310	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C312	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C318	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C326	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C327	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C329	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C330	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C331	TDK	E02-0142-0	Chip Cap, 1005 J 20PF
C332	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C341 C341 ⁴	TDK TDK	E02-0273-0 E02-000303-00	Chip Cap, 1005 J 56PF Chip Cap, 1005 J 82PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C343	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C347	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C351	TDK	E02-0093-0	Chip Cap, 1005 J 12PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C355	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C356	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C358	TDK	E02-0125-0	Chip Cap, 1005 J 18PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C361	TDK	E02-0125-0	Chip Cap, 1005 J 18PF
C362	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C363	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C365	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
C376	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C378	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C379	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C381 ⁵	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C383	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C385	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C386	TDK	E02-0024-0	Chip Cap, 1005 C 9PF
C387	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C388	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C390	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C404	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C405	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C406	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C409	TDK	E02-0127-0	Chip Cap, 1608 J 18PF
C410	TDK	E02-0223-0	Chip Cap, 1608 J 39PF
C413	TDK	E02-0182-0	Chip Cap, 1608 J 27PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C416	TDK	E02-0023-0	Chip Cap, 1608 D 8PF
C417	TDK	E02-0023-0	Chip Cap, 1608 D 8PF
C418	TDK	E02-0109-0	Chip Cap, 1608 J 15PF
C419	TDK	E02-0018-0	Chip Cap, 1608 D 6PF
C420	TDK	E02-0094-0	Chip Cap, 1608 J 12PF
C422	TDK	E02-0023-0	Chip Cap, 1608 D 8PF
C426	TDK	E02-0020-0	Chip Cap, 1608 C 7PF
C427	TDK	E02-0012-0	Chip Cap, 1608 C 4PF
C428	TDK	E02-0020-0	Chip Cap, 1608 C 7PF
C429	TDK	E02-0010-0	Chip Cap, 1608 D 3PF
C431	TDK	E02-0042-0	Chip Cap, 1608 J 1000PF
C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C436	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C445	TDK	E02-0018-0	Chip Cap, 1608 D 6PF
C446	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C451	TDK	E02-0018-0	Chip Cap, 1608 D 6PF
C452	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C454	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C461	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C474	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C502	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C507	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C508	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C511	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C516	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C522	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C525	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C539	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C543	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C545	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C551	AVX	E02-0347-0	Chip Tantal, 10uF-M/10V(A)
C560 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C561 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C562 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C563 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C564 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C565 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C566 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C618	AVX	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)
C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF
C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF
C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF
C701	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C705	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C706	TDK	E02-0024-0	Chip Cap, 1005 D 9PF
C707	TDK	E02-0024-0	Chip Cap, 1005 J 18PF
C709	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C711	MURATA	E02-0907-0	Chip Cap, 1005 J 16PF 10V

Circuit Ref.	Supplier	Supplier Part No.	Description
C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C714	TDK	E02-0125-0	Chip Cap, 1005 K 1000PF
C715	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C724	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C726	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C728	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C729	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C731	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C751	AVX	E02-0339-0	Chip Tantal, 1uF-M/35V(A)
C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C753	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C754	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C1001 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1002 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1003 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1004 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1005 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1006 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1007 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1015 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C1018 ^{1,2,3}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1040	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1041	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1042	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1043	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1100	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1101	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1102	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C1103	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C1104	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1105	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1200	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1201	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C1202	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1203	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C1204	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1205	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1206	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
CF1	BGTech	E17-0003-0	TOKO, Ceramic Filter, ELFY455F
CF1 ⁴	BGTech	E17-000057-00	CQ, Ceramic Filter, LTWC455F

Circuit Ref.	Supplier	Supplier Part No.	Description
CF2	BGTech	E17-0004-0	TOKO, Ceramic Filter, ELFY455H
CF2 ⁴	BGTech	E17-000058-00	CQ, Ceramic Filter, LTWC455H
CR110 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR111 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR112 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR113 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR114 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR115 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR116	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR117	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR201	KEC	E06-0005-0	SWITCH DIODE, KDS 181
CR202	KEC	E06-0005-0	SWITCH DIODE, KDS 181
CR301	KEC	E06-0002-0	SWITCH DIODE, KDS-114
CR305	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR306	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR307	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR309	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
CR310	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
CR312	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR313	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR314	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR315	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR316	BGTech	E06-0159-0	SCHOTTKY DIODE, HSMS-2829

Circuit Ref.	Supplier	Supplier Part No.	Description
CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T
CR501 ^{1,2,3}	BRIGHT LED	E07-0041-0	LED DIODE, BL-HEIG033B-TR
CR701	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR702	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR703	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
DEC1	BGTech	E17-0038-0	CQ, Discriminator, JTBC455C24(LCP)
FL101	BGTech	E08-000152-00	SHINSUNG, Crystal, 14.7456MHz
FL102	BGTech	E08-0036-0	SHINSUNG, Crystal, 3.5795MHz (H : 2.8mm)
FL201	BGTech	E08-0043-0	SHINSUNG, Crystal, 44.645MHz (SMD)
FL301	BGTech	E17-0026-0	SHINSUNG, Crystal Filter, MCF 45.15S12.B (8.5KHz)
FL701	BGTech	E08-0055-0	SHINSUNG, VCTCXO, 12.8 MHZ
F-CABLE1	BGTech	E15-0042-0	SNAGGWA, BEACON FLAT CABLE, FF12-22N080XXA
F-CABLE2	BGTech	E15-0174-0	SNAGGWA, BEACON FLAT CABLE, FF12-12N040XXA
J101 ^{1,2}	BGTech	E10-0167-0	YUNHO, FPC CONNECTOR, 05004HR-07C01S(G)
J102	BGTech	E10-0173-0	YUNHO, FPC CONNECTOR, 05004HR-22A01S
J103 ^{1,2,3}	BGTech	E10-0171-0	KYOCERA, FPC CONNECTOR, 04-6292-022-000-800+
J104 ^{1,2,3}	BGTech	E10-0169-0	OMIRON, FPC CONNECTOR, XF2M-1215-1A
J105	BGTech	E10-0349-0	YUNHO, FPC CONNECTOR, 05004HR-12B01S(G)
J601	BGTech	E10-0014-0	CHI CHENG, SPK MIC JACK, 0980683Z01-D

Circuit Ref.	Supplier	Supplier Part No.	Description
J602	BGTech	E10-0081-0	SUYIN, BATTERY CONNECTOR, 060031MA005G500PL
J603	BGTech	E10-0099-0	MOLEX, CONNECTOR, 53047-0210
L301	DEARIM	E03-0063-0	Coil Air, 0.45-1.4-5TL
L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N
L306	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33N
L310	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L320	DELTA	9270027011820	Chip Ind, 2012 27NH
L323	DELTA	9270027011820	Chip Ind, 2012 27NH
L324	DELTA	9270027011820	Chip Ind, 2012 27NH
L325	DELTA	9270022111820	Chip Ind, 2012 220NH
L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
L328	DELTA	9270027011820	Chip Ind, 2012 27NH
L329	BGTech	E03-0185-0	TOKO, #617PT-1667
L331	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L332	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 K 220NH
L333	BGTech	E03-0185-0	TOKO, #617PT-1667
L334	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
L340	DELTA	9270820N11820	Chip Ind, 2012 820NH
L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH
L402	TAIYOYUDEN	E03-0108-0	Chip Ind, 1608 J 22nH
L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ
L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH
L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
L409	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L410	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L411	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L413	DEARIM	E03-0051-0	Coil Air, 0.35-1.6-7TL
L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH

Circuit Ref.	Supplier	Supplier Part No.	Description
L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L603	BGTech	E03-0328-0	Chip Ferrite Beads, MMZ1608Y600B
L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L706	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
LCD101	BGTech	E20-0092-0	EVERRVIEW,VBS3208A2-7FWLYA,REV4.0
MIC1 ^{1,2,3}	BGTech	E19-0009-0	BSE, C-MIC, 6.0*2.7/ 2.2KΩ,2V,-44±3dB, Pin type
PB501	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
PB502	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
PB503	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
Q101	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q102	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q103	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q104	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q111	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q112	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q113	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q114	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q120	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q121	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q122	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q201	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q202 ⁵	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q206	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q301	KEC	E05-0065-0	2SC4901 BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q308	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
Q405	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q406	KEC	E05-0032-0	KRC 404 BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q407	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q408	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q409	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q501 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q502 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q503	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q504	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q505	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q601	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q602	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q701	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q702	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q703	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q704	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q705	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q706	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q707	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q708	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q709	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q710	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q711	KEC	E05-0027-0	KRA 304 BJT PNP Transistor
Q1100	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q1200	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R115 ¹	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R133	KAMAYA	E01-0362-0	Chip Res, 1005 J 680KΩ
R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9MΩ
R135	TDK	E02-0057-0	Chip Cap,1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68KΩ
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R147 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10KΩ
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12KΩ
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680Ω
R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KΩ
R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R155 ^{1,2}	KAMAYA	E01-0284-1	Chip Res, 1005 J 470Ω
R156 ^{1,2}	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R159 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R160 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R161 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R176	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R177	KAMAYA	E01-0194-0	Chip Res, 1005 J 24KΩ
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51KΩ
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R181	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200KΩ
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R189	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R191	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R192	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R196 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R197 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R198 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R199 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22KΩ
R204	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R206	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R208 R208 ⁴	KAMAYA KAMAYA	E01-0085-0 E01-0056-1	Chip Res, 1005 J 12KΩ Chip Res, 1005 J 10KΩ
R210	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R211	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R212 R212 ⁴	KAMAYA KAMAYA	E01-0295-1 E01-000242-00	Chip Res, 1005 J 47KΩ Chip Res, 1005 J 33KΩ
R213 R213 ⁴	KAMAYA KAMAYA	E01-0238-0 E01-000025-01	Chip Res, 1005 J 3.3KΩ Chip Res, 1005 J 0Ω
R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R217	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R220 R220 ⁴	KAMAYA KAMAYA	E01-0263-1 E01-000250-00	Chip Res, 1005 J 3.9KΩ Chip Res, 1005 J 3.6KΩ
R230 ⁴	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3KΩ
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R258 R258 ⁴	KAMAYA KAMAYA	E01-0107-0 E01-000386-00	Chip Res, 1005 J 1.5KΩ Chip Res, 1005 J 8.2KΩ
R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R309	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R310	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6KΩ
R311	KAMAYA	E01-0234-1	Chip Res, 1005 J 330Ω
R312	KAMAYA	E01-0119-0	Chip Res, 1005 J 150KΩ
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R317 R317 ⁴	KAMAYA KAMAYA	E01-0143-0 E01-000184-00	Chip Res, 1005 J 180KΩ Chip Res, 1005 J 220KΩ
R318 R318 ⁴	KAMAYA KAMAYA	E01-0201-0 E01-000172-01	Chip Res, 1005 J 2.7KΩ Chip Res, 1005 J 2.2KΩ
R319 R319 ⁴	KAMAYA KAMAYA	E01-0263-1 E01-0107-0	Chip Res, 1005 J 3.9KΩ Chip Res, 1005 J 1.5KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R320	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R339	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R341	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R342 ⁵	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5KΩ
R343	TAIYOYUDEN	E03-0308-0	Chip Ind, 1005 J 2.2uH
R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39Ω
R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180Ω
R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R405	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R406	KAMAYA	E01-0165-0	Chip Res, 1005 J 22Ω
R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220Ω
R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KΩ
R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1Ω
R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KΩ
R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ
R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R423	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R427	KAMAYA	E01-0184-0	Chip Res, 1005 J 220KΩ
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R501 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R502 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56KΩ
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 KΩ
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12KΩ
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6KΩ
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20KΩ
R516	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2KΩ
R517	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7KΩ
R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1MΩ
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30KΩ
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47KΩ
R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 KΩ
R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82KΩ
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R538	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390KΩ
R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2Ω
R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39KΩ
R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560Ω
R701	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7KΩ
R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8KΩ
R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220Ω
R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30KΩ
R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R715	KAMAYA	E01-0315-1	Chip Res, 1005 J 56Ω
R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300Ω
R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5KΩ
R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150Ω
R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390Ω
R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100Ω
R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3KΩ
R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7KΩ
R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100KΩ
R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33KΩ
R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω

Circuit Ref.	Supplier	Supplier Part No.	Description
R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1KΩ
R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1KΩ
R1003	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2KΩ
R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
R1101	KAMAYA	E01-0152-0	Chip Res, 1005 J 2KΩ
R1102	KAMAYA	E01-0209-0	Chip Res, 1005 J 270KΩ
R1103	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R1104	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R1105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1106	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1107	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R1108	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R1109	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1110	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R1111	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1112	KAMAYA	E01-0037-0	Chip Res, 1005 J 10Ω
R1200	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2KΩ
R1201	KAMAYA	E01-0112-1	Chip Res, 1005 J 15KΩ
R1202	KAMAYA	E01-0205-0	Chip Res, 1005 J 27KΩ
R1203	KAMAYA	E01-0246-0	Chip Res, 1005 J 330KΩ
R1204	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5KΩ
R1205	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R1206	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9KΩ
R1207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ

Circuit Ref.	Supplier	Supplier Part No.	Description
R1208	KAMAYA	E01-0298-0	Chip Res, 1005 J 470KΩ
R1209	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7MΩ
R1210	KAMAYA	E01-0056-1	Chip Res, 1005 J 10KΩ
R1211	KAMAYA	E01-0295-1	Chip Res, 1005 J 47KΩ
R1212	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
R1213	KAMAYA	E01-0025-1	Chip Res, 1005 J 0Ω
RT201 ⁵	TAIYOYUDEN	E01-0478-0	Thermistor, 103KΩ
RT202 ⁴	TAIYOYUDEN	E01-001138-00	Thermistor, 103KΩ
SPK1	BGTech	E21-0018-0	SHINMYUNG, Speaker, 24Ω 1.0W 36Φ(Connector type)
SW/ VOL1 ^{1,2,3}	BGTech	E01-1032-0	TOKOS, Switch Volume, RY-8418 Rev1
SW1 ^{1,2}	BGTech	E09-000048-00	TOKOS, Channel Switch Volume, RY-8487
U101	BGTech	E04-000754-00	RENESAS ,CPU IC, M3030RFGPGP
U102	BGTech	E04-0114-0	ASAHI KASEL, AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	ZERLINK, DTMF RECEIVER, MT88L70
U104	BGTech	E04-000755-00	MIRCO CHIP, EEPROM IC, 24LC128L
U105	JRC	E04-0185-0	OP AMP, NJM324
U106	BGTech	E04-0211-0	TOSHIBA, Analog SW IC, TC7S66FU
U107	BGTech	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201 U201 ⁴	BGTech BGTech	E04-0195-0 E04-000890-00	TOSHIBA, FM IC, TA31136 AGAMEM, FM IC, AA32416
U202	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358
U402	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	JRC, OP AMP, NJM324

Circuit Ref.	Supplier	Supplier Part No.	Description
U502	JRC	E04-0185-0	JRC, OP AMP, NJM324
U505	BGTech	E04-0150-0	TOKO, REGULATOR IC, TK11250AMTL
U506	BGTech	E04-0588-0	TOKO, REGULATOR IC, TK11233AMTL
U507	BGTech	E04-0207-0	MICRO CHIP, VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	MIRCO CHIP,DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	PHILIPS, AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	FUJISU, PLL IC, MB15E03SLPFV1-(ER)-E1
U1100	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1102	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
U1200	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1201	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
PCB1	BGTech	E11-000947-00	CAFSYSTEM, Main PCB, FR4 4 Layer PCB Rev.#MP01
PCB1 ⁴	BGTech	E11-001016-00	CAFSYSTEM, Main PCB, FR4 4 Layer PCB Rev.#MP02
SUB PCB1 ^{1,2,3}	BGTech	E11-000002-02	CAFSYSTEM, Sub PCB, 1.2T 2Layer
KEY PCB1 ^{1,2,3}	BGTech	E11-000886-00	CAFSYSTEM, Key PCB, 1.2T 2Layer

Note:

1. For PMUE3749AAE Model
2. For PMUE3748AAE Model
3. For PMUE3747AAE Model
4. Only for PCB No. *E11-001016-00*
5. Not applicable for PCB No. *E11-001016-00*

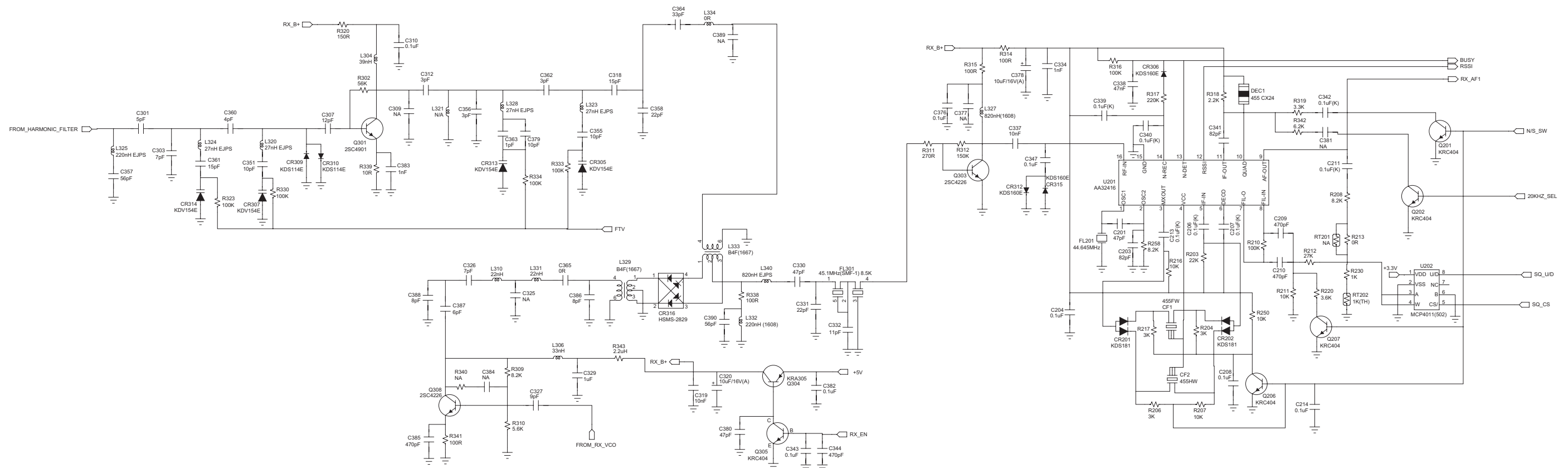


Figure 13-31. MDC/QCII R&TTE (403–447 MHz) Receiver Schematic Diagram (Part No:E11-001016-00)

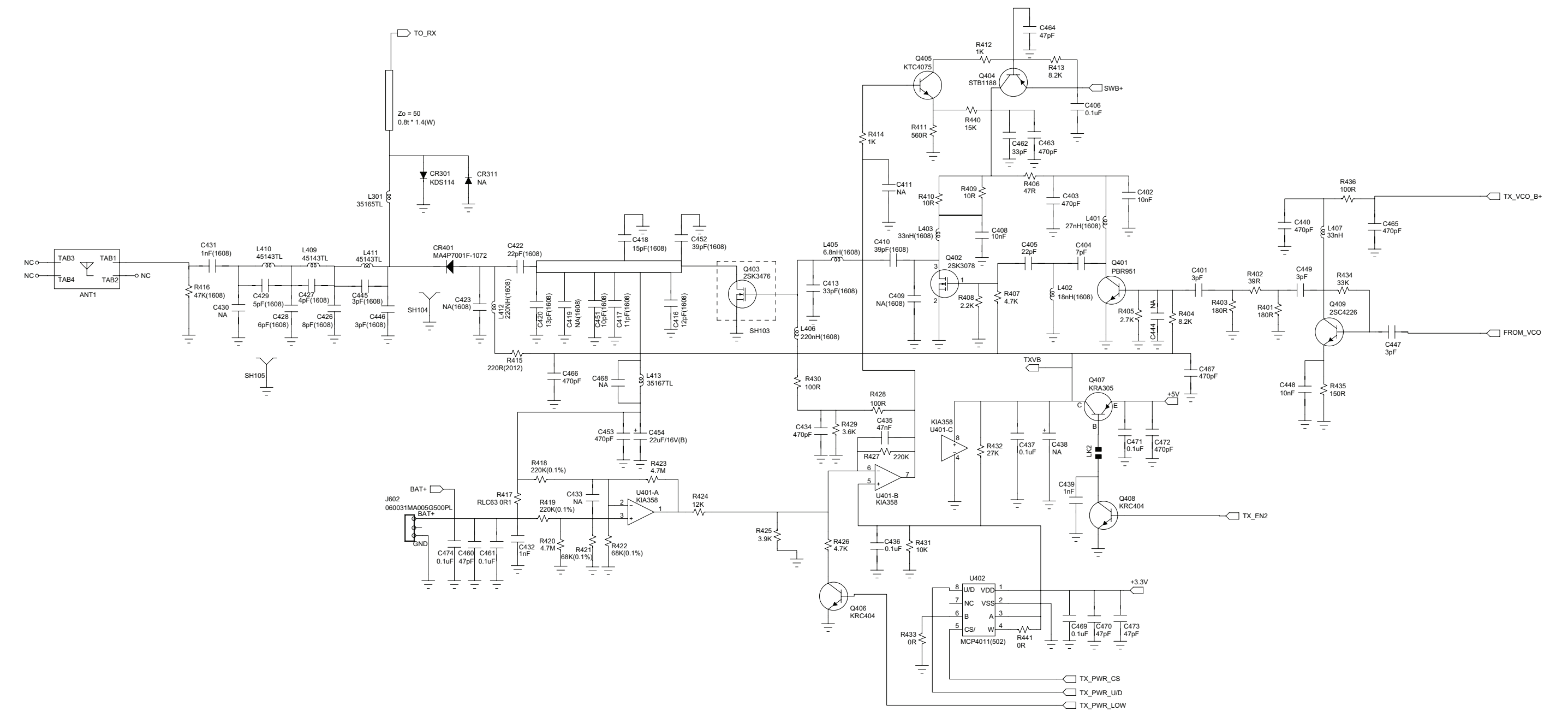


Figure 13-33. (MDC/QCII R&TTE) Transmitter Schematic Diagram

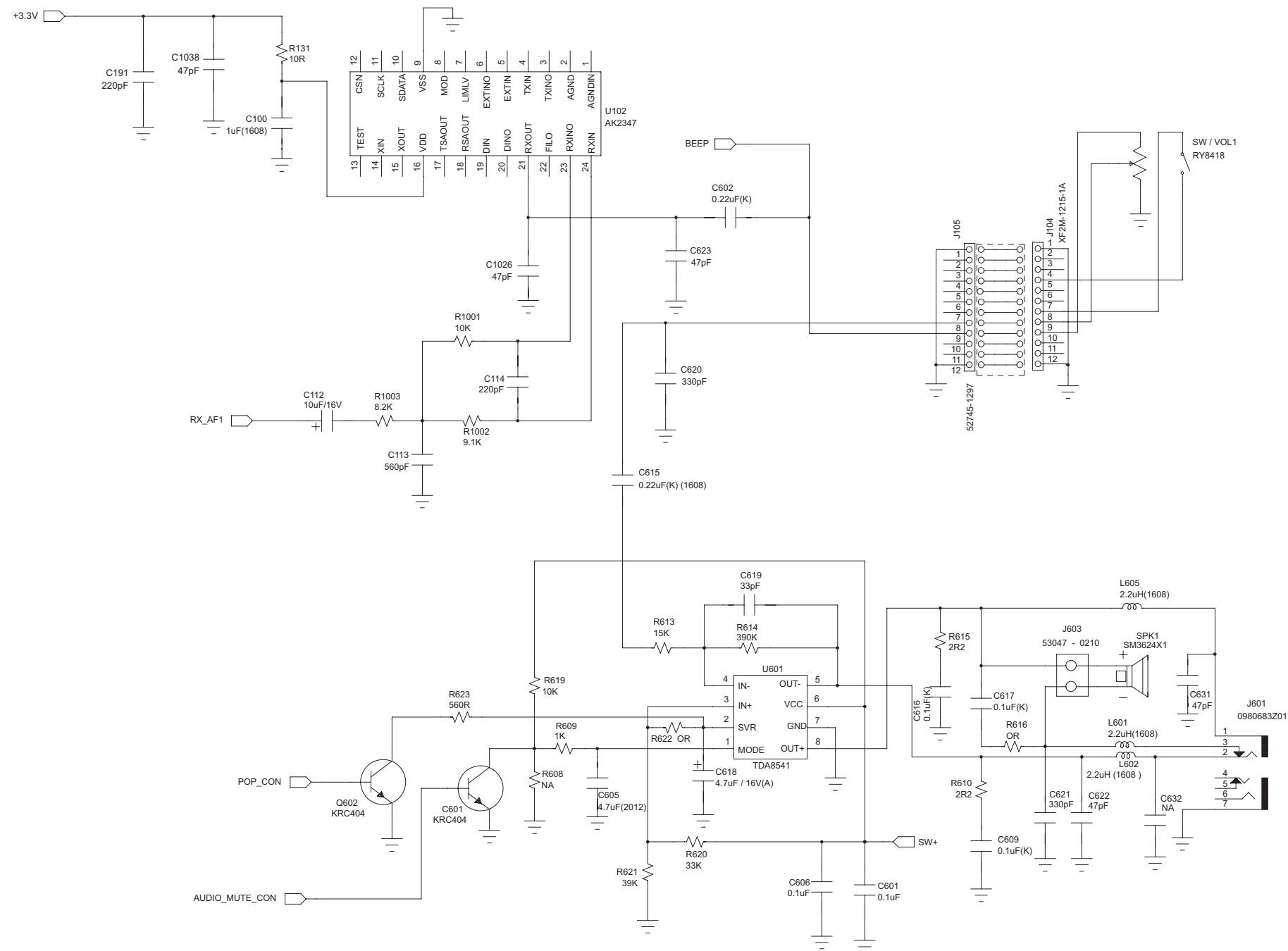


Figure 13-35. MDC/QCII R&TTE Audio Power Amplifier and External Audio Schematic Diagram

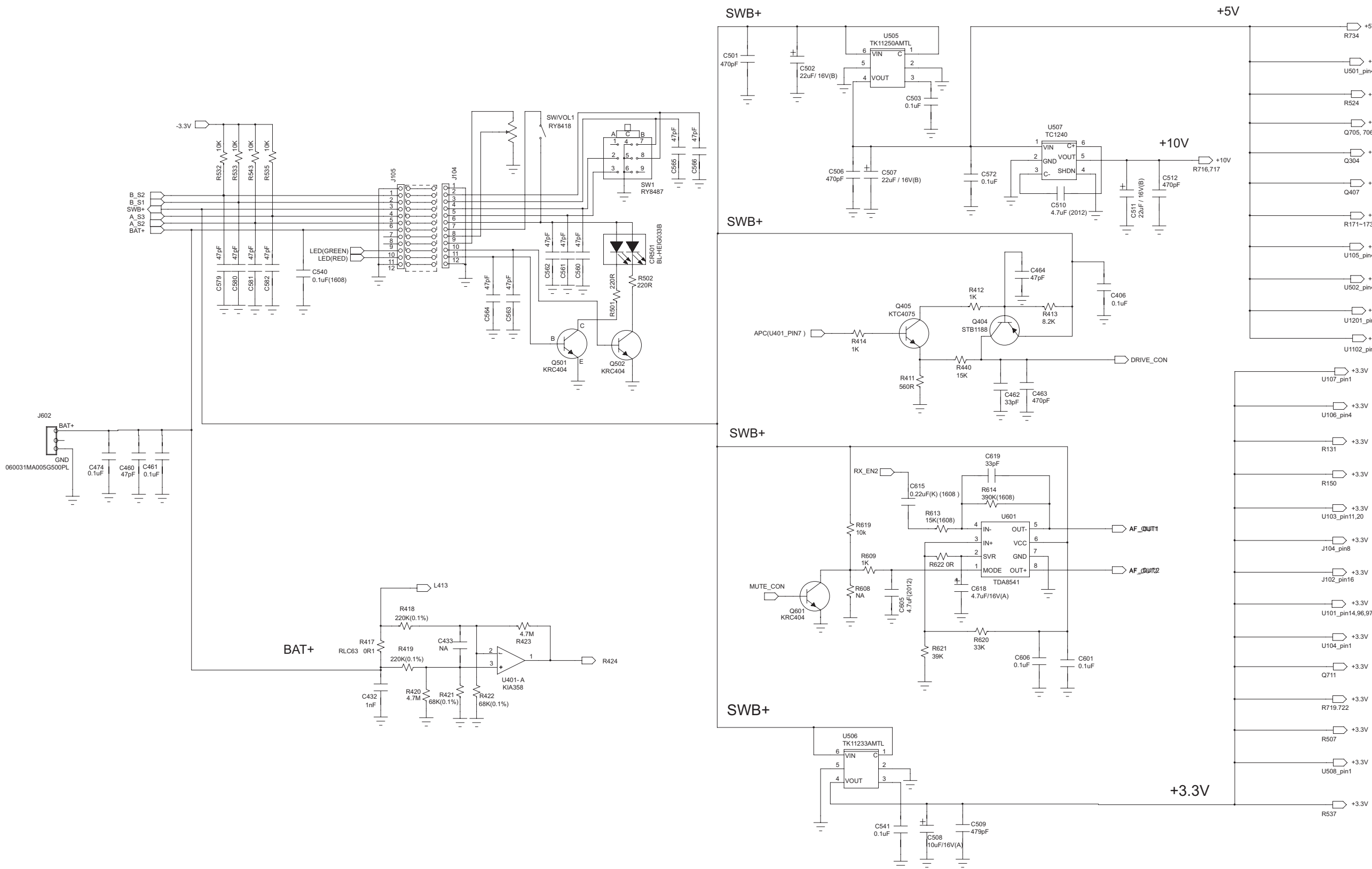


Figure 13-36. MDC/QCII R&TTE Switches and Battery Schematic Diagram

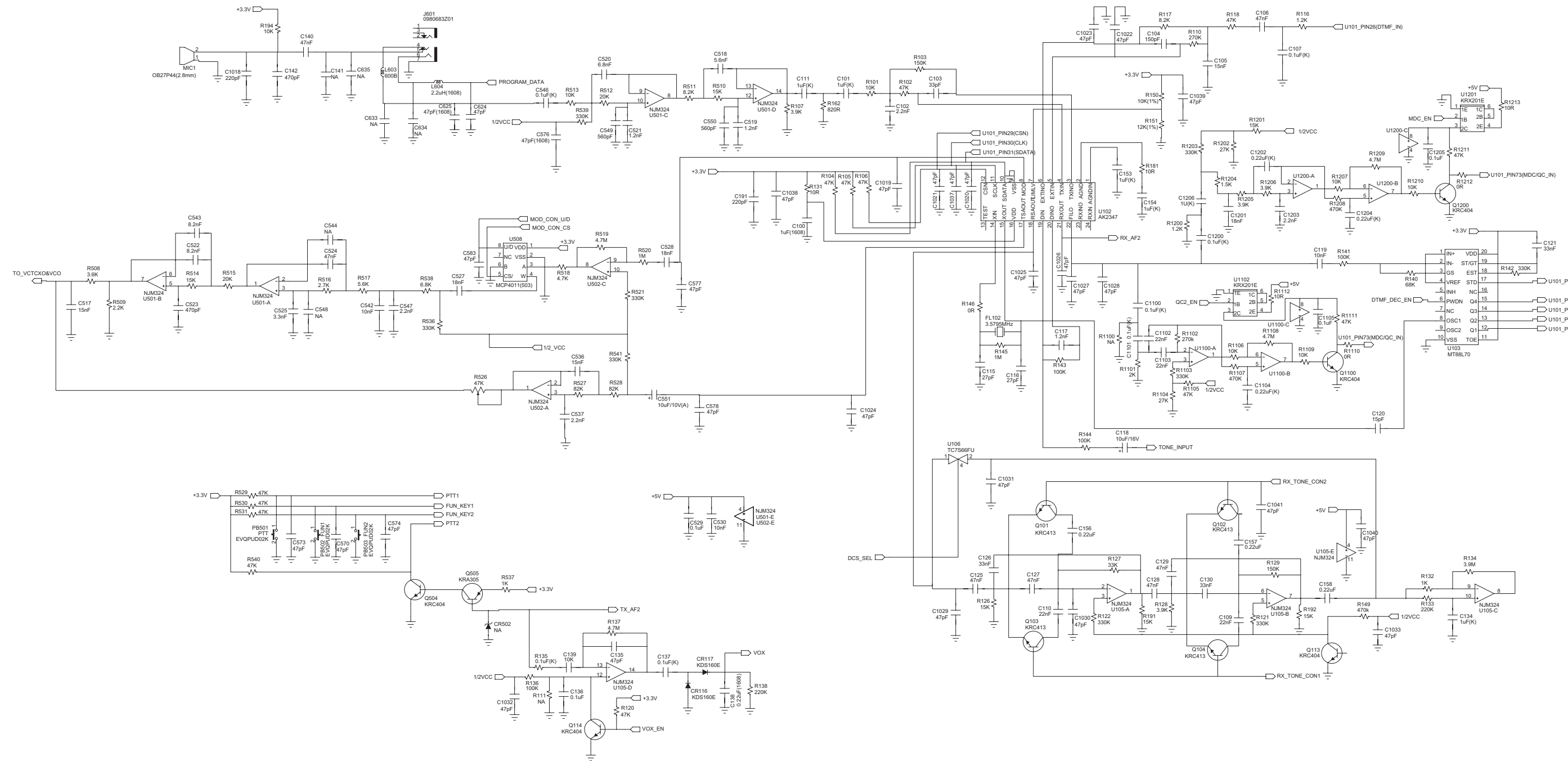


Figure 13-37. MDC/QCII R&TTE Audio Filter and Sub- Tone Schematic Diagram

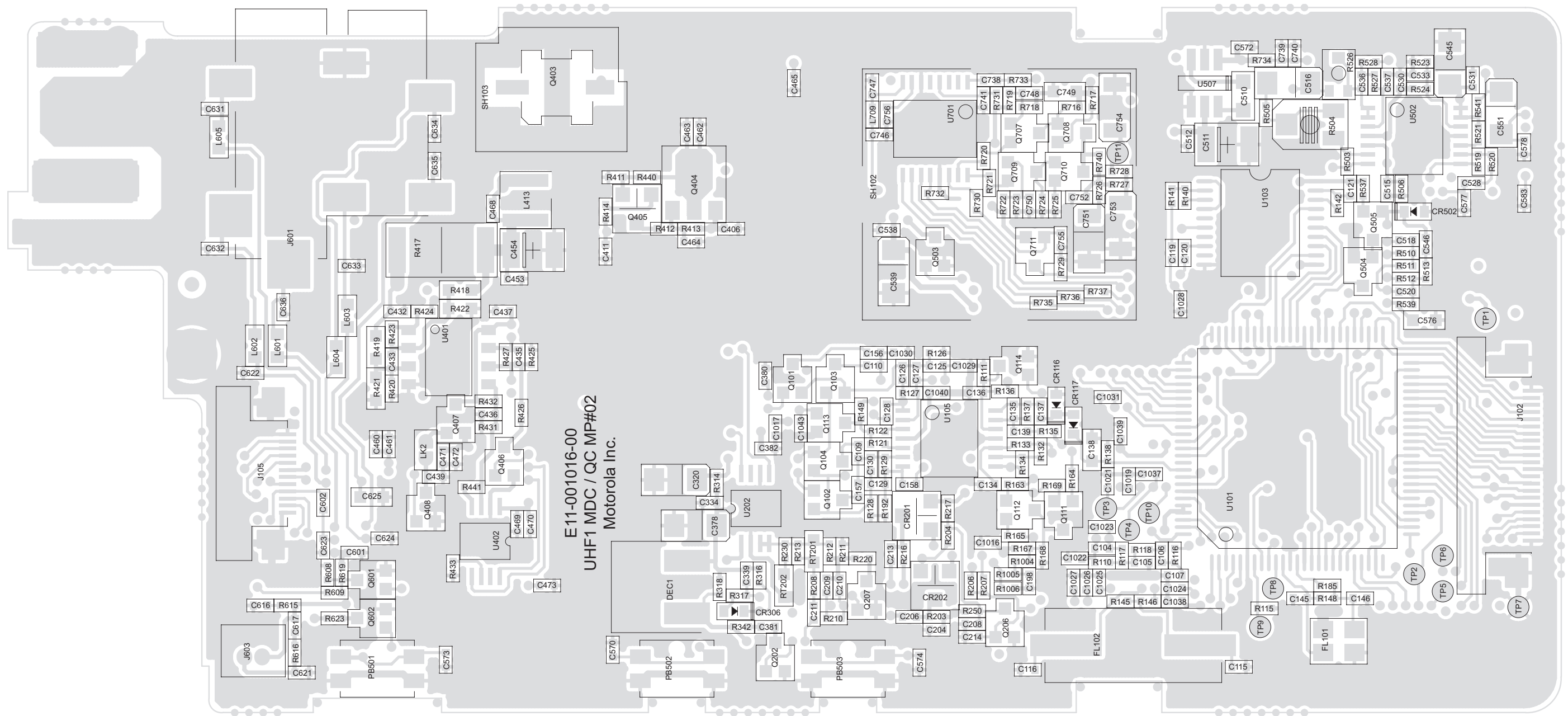


Figure 13-38. UHF1 MDC/QCII R&TTE (403–447 MHz) Mainboard Top Side: PCB No. E11-001016-00

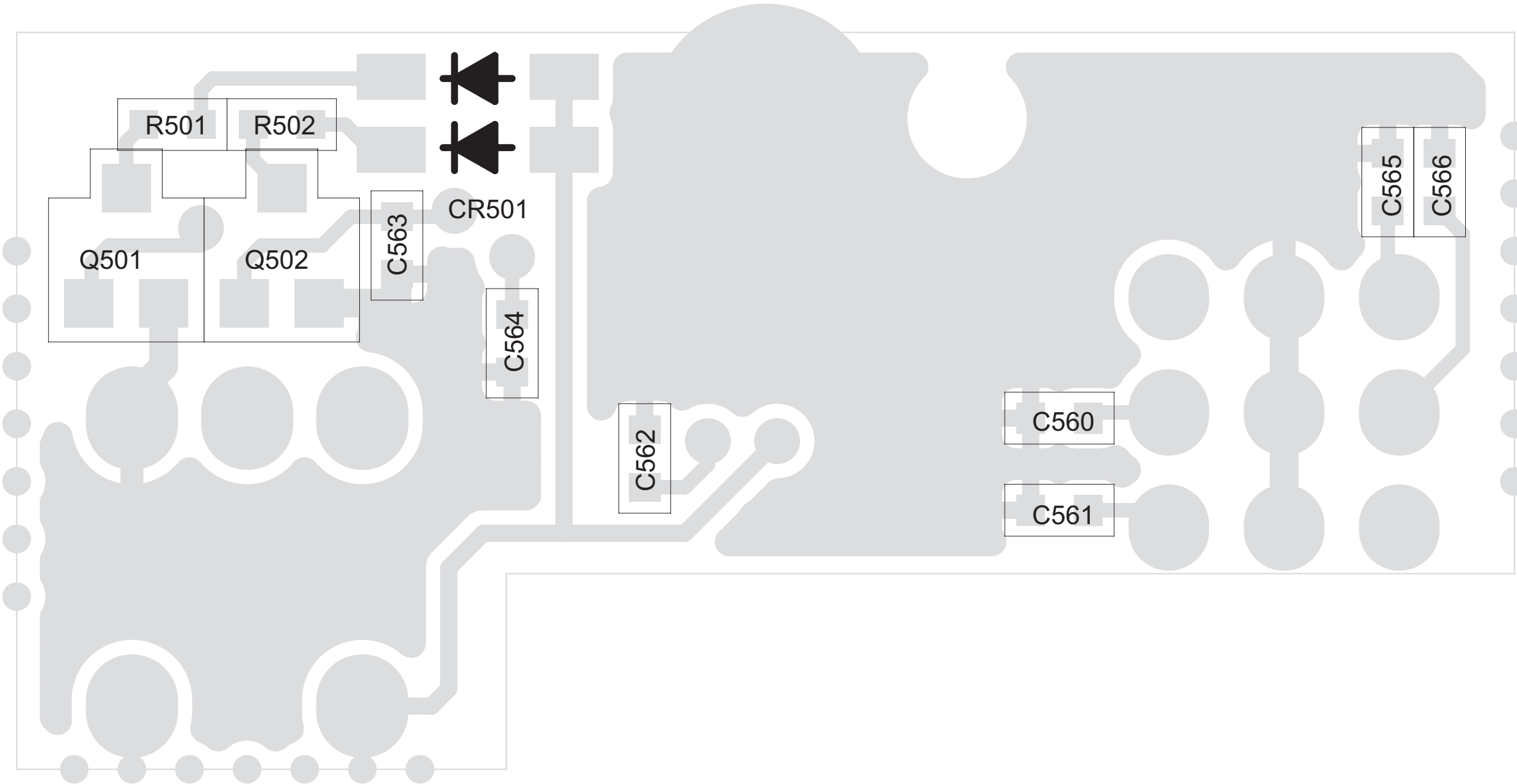


Figure 13-40. UHF1 (403–447 MHz) Sub Circuit Board Top View: PCB No. E11-000002-02

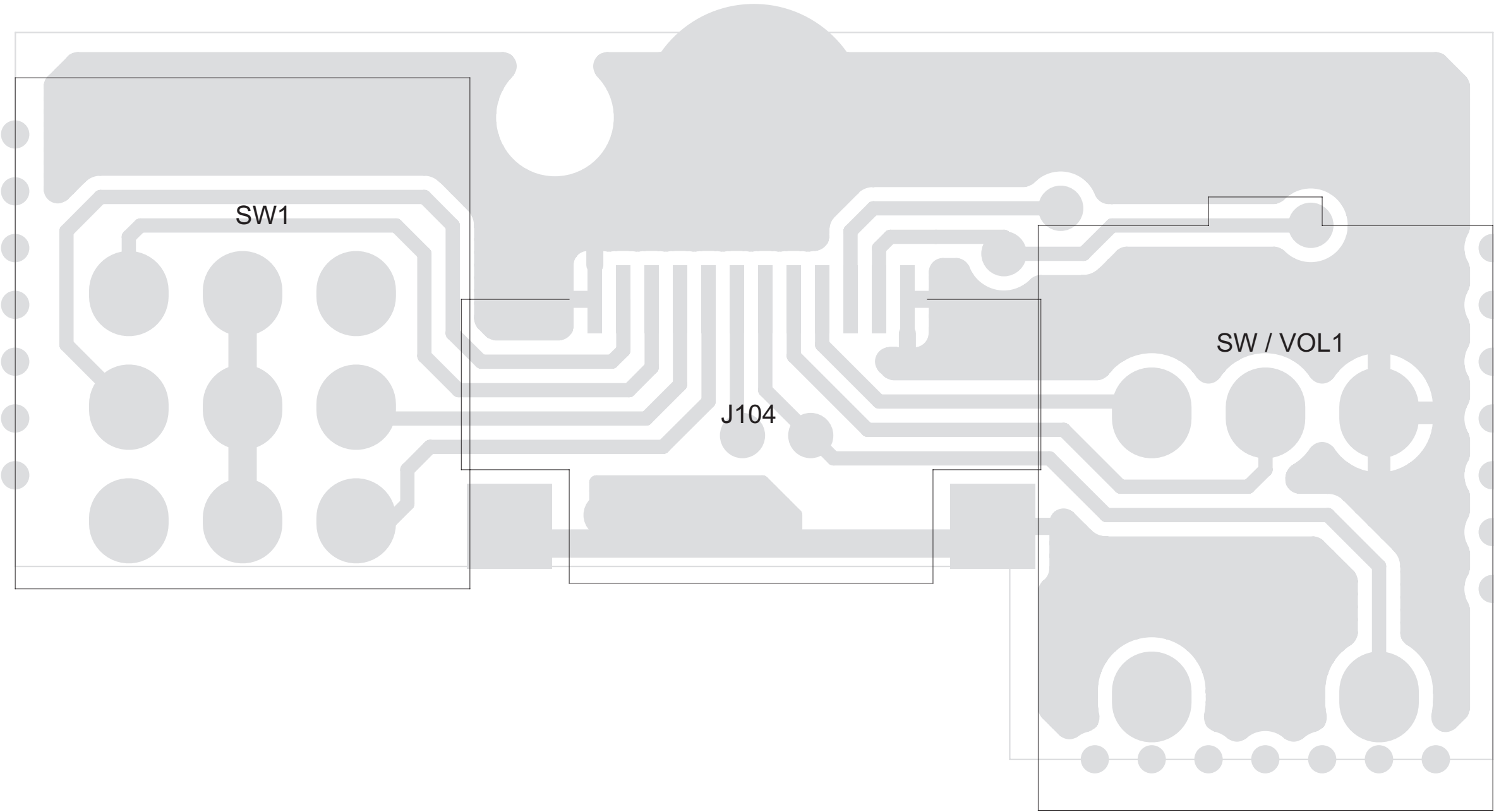


Figure 13-41. UHF1 (403–447 MHz) Sub Circuit Board Bottom View: PCB No. E11-000002-02

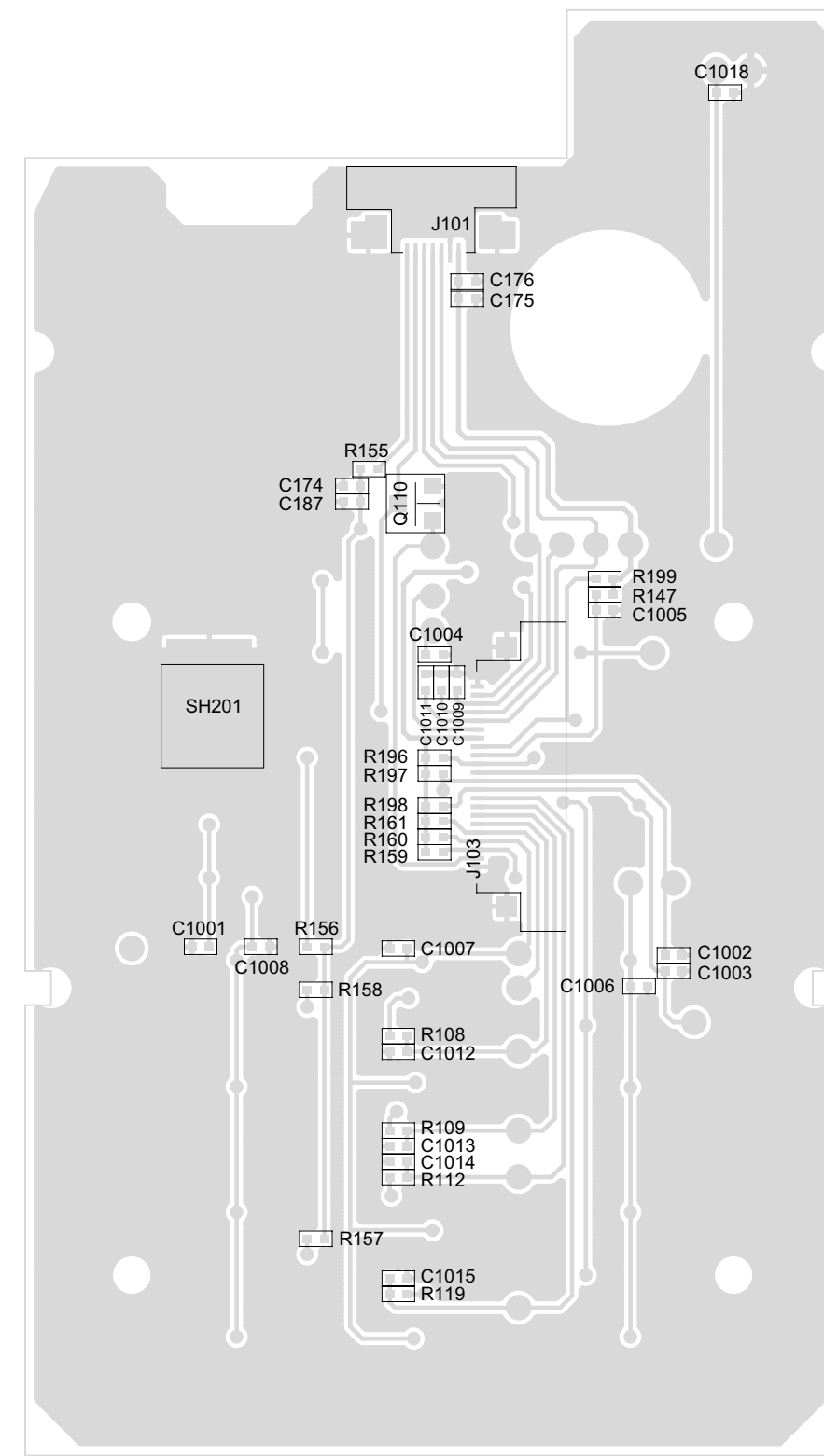


Figure 13-42. UHF1 (403–447 MHz) Keypad Board: PCB No. E11-000886-00

13.5.1 Parts List UHF1 MDC/QCII R&TTE (403–447 MHz)

Circuit Ref.	Supplier	Supplier Part No.	Description
C100	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C101	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C102	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C103	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C104	TDK	E02-0111-0	Chip Cap, 1005 J 150PF
C105	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C106	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C107	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C109	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C110	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C111	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C112	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C113	TDK	E02-0277-0	Chip Cap, 1005 K 560PF
C114	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C115	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C116	TDK	E02-0180-0	Chip Cap, 1005 J 27PF
C117	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C118	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C119	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C120	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C121	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C123	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C124	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C125	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C126	TDK	E02-0216-0	Chip Cap, 1005 K 333PF
C127	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C128	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C129	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C130	TDK	E02-0216-0	Chip Cap,1005 K 333PF
C134	TDK	E02-000070-00	Chip Cap, 1005 K 105PF
C135	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C136	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C137	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C138	TDK	E02-0166-0	Chip Cap, 1608 K 224PF
C139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
C140	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C142	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C143	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C144	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C145	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C146	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C147	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C153	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C154	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C156	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C157	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C158	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C162	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C163	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C164	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C169	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C172	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C173	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C174 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C175 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C176 ^{1,2}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C187 ^{1,2}	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C188	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C189	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C191	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C194	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C195	TDK	E02-0153-0	Chip Cap, 1005 J 220PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C201	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C203	TDK	E02-0303-0	Chip Cap, 1005 J 82PF
C204	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C206	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C207	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C208	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C209	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C210	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C211	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C213	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C214	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C301	TDK	E02-0013-0	Chip Cap, 1005 C 5PF
C303	TDK	E02-000019-00	Chip Cap, 1005 C 7PF
C307	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C310	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C312	TDK	E02-000009-00	Chip Cap, 1005 C 3PF
C318	TDK	E02-0108-0	Chip Cap, 1005 J 15PF
C319	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C320	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C326	TDK	E02-000019-00	Chip Cap, 1005 C 7PF
C327	TDK	E02-000481-00	Chip Cap, 1005 D 9PF
C329	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
C330	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C331	TDK	E02-000147-00	Chip Cap, 1005 J 22PF
C332	MURATA	E02-000091-00	Chip Cap, 1005 J 11PF 10V
C334	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C337	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C338	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C339	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C340	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C341	TDK	E02-000303-00	Chip Cap, 1005 J 82PF
C342	TDK	E02-0057-0	Chip Cap, 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C343	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C344	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C347	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C351	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C355	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C356	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C357	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C358	TDK	E02-000147-00	Chip Cap, 1005 J 22PF
C360	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C361	TDK	E02-000108-00	Chip Cap, 1005 J 15PF
C362	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C363	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C364	TDK	E02-0201-0	Chip Cap, 1005 J 33PF
C365	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
C376	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C378	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C379	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C380	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C381	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C382	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C383	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C385	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C386	TDK	E02-000475-00	Chip Cap, 1005 D 8PF
C387	TDK	E02-000464-00	Chip Cap, 1005 C 6PF
C388	TDK	E02-000475-00	Chip Cap, 1005 D 8PF
C390	TDK	E02-0273-0	Chip Cap, 1005 J 56PF
C401	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C402	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C403	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C404	TDK	E02-000019-00	Chip Cap, 1005 D 7PF
C405	TDK	E02-000147-00	Chip Cap, 1005 J 22PF
C406	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C408	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C410	TDK	E02-0223-0	Chip Cap, 1608 J 39PF
C413	TDK	E02-000666-00	Chip Cap, 1608 J 33PF
C416	TDK	E02-000556-00	Chip Cap, 1608 J 12PF
C417	MURATA	E02-000955-00	Chip Cap, 1608 J 11PF 10V
C418	TDK	E02-0109-0	Chip Cap, 1608 J 15PF
C420	TDK	E02-000563-00	Chip Cap, 1608 J 13PF
C422	TDK	E02-000603-00	Chip Cap, 1608 J 22PF
C426	TDK	E02-0023-0	Chip Cap, 1608 D 8PF
C427	TDK	E02-0012-0	Chip Cap, 1608 C 4PF
C428	TDK	E02-000466-00	Chip Cap, 1608 C 6PF
C429	TDK	E02-000460-00	Chip Cap, 1608 C 5PF
C431	TDK	E02-0042-0	Chip Cap, 1608 J 1000PF
C432	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C434	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C435	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C436	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C437	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C439	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C440	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C445	TDK	E02-000450-00	Chip Cap, 1608 C 3PF
C446	TDK	E02-0010-0	Chip Cap, 1608 C 3PF
C447	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C448	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
C449	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C451	TDK	E02-000495-00	Chip Cap, 1608 D 10PF
C452	TDK	E02-000689-00	Chip Cap, 1608 J 39PF
C453	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C454	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C460	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C461	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C462	TDK	E02-0201-0	Chip Cap, 1005 J 33PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C463	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C464	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C465	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C466	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C467	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C469	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C470	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C471	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C472	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C473	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C474	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C501	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C502	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C503	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C506	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C507	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C508	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C509	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C510	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF
C511	AVX	E02-0384-0	Chip Tantal, 22uF-M/16V(B)
C512	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C515	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C516	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)
C517	TDK	E02-0118-0	Chip Cap, 1005 K 153PF
C518	TDK	E02-0279-0	Chip Cap, 1005 K 562PF
C519	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C520	TDK	E02-0297-0	Chip Cap, 1005 K 682PF
C521	TDK	E02-0100-0	Chip Cap, 1005 K 122PF
C522	TDK	E02-000308-00	Chip Cap, 1005 K 8200PF
C523	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C524	TDK	E02-0250-0	Chip Cap, 1005 K 473PF
C525	TDK	E02-000676-00	Chip Cap, 1005 K 3300PF

Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description	Circuit Ref.	Supplier	Supplier Part No.	Description
C527	TDK	E02-0134-0	Chip Cap, 1005 K 183PF	C575	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C710	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C528	TDK	E02-0134-0	Chip Cap, 1005 K 183PF	C576	TDK	E02-0234-0	Chip Cap, 1608 J 47PF	C711	MURATA	E02-0907-0	Chip Cap, 1005 J 16PF 10V
C529	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C577	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C712	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C530	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C578	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C714	TDK	E02-0125-0	Chip Cap, 1005 K 1000PF
C531	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C579	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C715	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)
C533	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C580	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C716	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C536	TDK	E02-0118-0	Chip Cap, 1005 K 153PF	C581	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C717	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C537	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C582	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C718	TDK	E02-0011-0	Chip Cap, 1005 C 4PF
C538	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C583	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C719	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C539	AVX	E02-0355-1	Chip Tantal, 10uF-M/16V(A)	C601	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C721	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C540	TDK	E02-0067-0	Chip Cap, 1608 Z 104PF	C602	TDK	E02-0165-0	Chip Cap, 1005 K 224PF	C722	MURATA	E02-0426-0	Chip Trimmer Cap, 2PIE 6PF
C541	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C605	TDK	E02-0262-0	Chip Cap, 2012 Z 475PF	C723	TDK	E02-0026-0	Chip Cap, 1005 C 0.5PF
C542	TDK	E02-0049-0	Chip Cap, 1005 K 103PF	C606	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C724	TDK	E02-0093-0	Chip Cap, 1005 J 12PF
C543	TDK	E02-000308-00	Chip Cap, 1005 K 8200PF	C609	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C725	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C545	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C615	TDK	E02-0166-0	Chip Cap, 1608 K 224PF	C726	TDK	E02-0003-0	Chip Cap, 1005 C 1PF
C546	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C616	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C727	TDK	E02-0009-0	Chip Cap, 1005 C 3PF
C547	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF	C617	TDK	E02-0057-0	Chip Cap, 1005 K 104PF	C728	TDK	E02-0021-0	Chip Cap, 1005 D 8PF
C549	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C618	AVX	E02-0405-0	Chip Tantal, 4.7uF-M/16V(A)	C729	TDK	E02-0016-0	Chip Cap, 1005 D 6PF
C550	TDK	E02-0277-0	Chip Cap, 1005 K 560PF	C619	TDK	E02-0201-0	Chip Cap, 1005 J 33PF	C730	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C551	AVX	E02-0347-0	Chip Tantal, 10uF-M/10V(A)	C620	TDK	E02-0208-0	Chip Cap, 1005 J 330PF	C731	TDK	E02-0006-0	Chip Cap, 1005 C 2PF
C560 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C621	TDK	E02-0208-0	Chip Cap, 1005 J 330PF	C738	TDK	E02-0019-0	Chip Cap, 1005 D 7PF
C561 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C622	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C739	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C562 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C623	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C740	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C563 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C624	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C741	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C564 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C625	TDK	E02-0234-0	Chip Cap, 1608 J 47PF	C742	TDK	E02-000142-00	Chip Cap, 1005 J 20PF
C565 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C701	AVX	E02-0383-0	Chip Tantal, 22uF-M/10V(A)	C746	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C566 ^{1,2,3}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C702	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C747	TDK	E02-0029-0	Chip Cap, 1005 D 10PF
C570	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C704	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF	C748	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C572	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF	C705	TDK	E02-0009-0	Chip Cap, 1005 C 3PF	C749	TDK	E02-0076-0	Chip Cap, 1608 Z 105PF
C573	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C706	TDK	E02-0024-0	Chip Cap, 1005 D 9PF	C750	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C574	TDK	E02-0233-0	Chip Cap, 1005 J 47PF	C707	TDK	E02-0024-0	Chip Cap, 1005 J 18PF	C751	AVX	E02-0339-0	Chip Tantal, 1uF-M/35V(A)
				C709	TDK	E02-0019-0	Chip Cap, 1005 D 7PF	C752	TDK	E02-0057-0	Chip Cap, 1005 K 104PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C753	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C754	PANASINIC	E02-0322-0	Film Chip Cap, 3216 J 473PF
C755	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C756	TDK	E02-0040-0	Chip Cap, 1005 K 1000PF
C1001 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1002 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1003 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1004 ¹	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1005 ¹	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1006 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1007 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1008 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1009 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1010 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1011 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1012 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1013 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1014 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1015 ^{1,2}	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1016	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1017	TDK	E02-0243-0	Chip Cap, 1005 K 470PF
C1018 ^{1,2,3}	TDK	E02-0153-0	Chip Cap, 1005 J 220PF
C1019	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1020	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1021	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1022	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1023	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1024	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1025	TDK	E02-0233-0	Chip Cap, 1005 J 47PF

Circuit Ref.	Supplier	Supplier Part No.	Description
C1026	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1027	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1028	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1029	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1030	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1031	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1032	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1033	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1034	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1035	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1036	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1037	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1038	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1039	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1040	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1041	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1042	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1043	TDK	E02-0233-0	Chip Cap, 1005 J 47PF
C1100	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1101	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1102	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C1103	TDK	E02-0162-0	Chip Cap, 1005 K 223PF
C1104	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1105	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1200	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
C1201	TDK	E02-0134-0	Chip Cap, 1005 K 183PF
C1202	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1203	TDK	E02-0159-0	Chip Cap, 1005 K 2200PF
C1204	TDK	E02-0165-0	Chip Cap, 1005 K 224PF
C1205	TDK	E02-0056-0	Chip Cap, 1005 Z 104PF
C1206	TDK	E02-0070-0	Chip Cap, 1005 K 105PF
CF1	BGTech	E17-000057-00	CQ, Ceramic Filter, LTWC455F

Circuit Ref.	Supplier	Supplier Part No.	Description
CF2	BGTech	E17-000058-00	CQ, Ceramic Filter, LTWC455H
CR110 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR111 ^{1,2}	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR112 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR113 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR114 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR115 ¹	BRIGHT LED	E07-0021-0	LED DIODE, BL-HG036D-TR
CR116	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR117	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR201	KEC	E06-0005-0	SWITCH DIODE, KDS 181
CR202	KEC	E06-0005-0	SWITCH DIODE, KDS 181
CR301	KEC	E06-0002-0	SWITCH DIODE, KDS-114
CR305	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR306	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR307	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR309	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
CR310	KEC	E06-0001-0	SWITCH DIODE, KDS-114E (ESM)
CR312	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR313	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR314	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR315	KEC	E06-0004-0	SWITCH DIODE, KDS-160E (ESM)
CR316	BGTech	E06-0159-0	SCHOTTKY DIODE, HSMS-2829
CR401	M/A COM	E06-0025-0	PIN DIODE, MA4P7001F-1072T

Circuit Ref.	Supplier	Supplier Part No.	Description
CR501 ^{1,2,3}	BRIGHT LED	E07-0041-0	LED DIODE, BL-HEIG033B-TR
CR701	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR702	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
CR703	KEC	E06-0065-0	VARIABLE DIODE, KDV-154E (ESM)
DEC1	BGTech	E17-000069-00	CQ, Discriminator, JTBC455CX24
F-CABLE1	BGTech	E15-0042-0	SNAGGWA, BEACON FLAT CABLE, FF12-22N080XXA
F-CABLE2	BGTech	E15-0174-0	SNAGGWA, , BEACON FLAT CABLE, FF12-12N040XXA
FL101	BGTech	E08-000152-00	SHINSUNG, Crystal, 14.7456MHz
FL102	BGTech	E08-0036-0	SHINSUNG, Crystal, 3.5795MHz (H : 2.8mm)
FL201	BGTech	E08-0043-0	SHINSUNG, Crystal, 44.645MHz (SMD)
FL301	BGTech	E17-0026-0	SHINSUNG, Crystal Filter, MCF 45.15S12.B (8.5KHz)
FL701	BGTech	E08-0055-0	SHINSUNG, VCTCXO, 12.8 MHZ
J101 ^{1,2}	BGTech	E10-0167-0	YUNHO, FPC CONNECTOR, 05004HR-07C01S(G)
J102	BGTech	E10-0173-0	YUNHO, FPC CONNECTOR, 05004HR-22A01S
J103 ^{1,2,3}	BGTech	E10-0171-0	KYOCERA, FPC CONNEC-TOR, 04-6292-022-000-800+
J104 ^{1,2,3}	BGTech	E10-0169-0	OMIRON, FPC CONNEC-TOR, XF2M-1215-1A
J105	BGTech	E10-0349-0	YUNHO, FPC CONNECTOR, 05004HR-12B01S(G)
J601	BGTech	E10-0014-0	CHI CHENG, SPK MIC JACK, 0980683Z01-D
J602	BGTech	E10-0081-0	SUYIN, BATTERY CONNEC-TOR, 060031MA005G500PL
J603	BGTech	E10-0099-0	MOLEX, CONNECTOR, 53047-0210

Circuit Ref.	Supplier	Supplier Part No.	Description
L301	DEARIM	E03-000048-00	Coil Air, 0.35-1.6-5TL
L304	TAIYOYUDEN	E03-0124-0	Chip Ind, 1005 J 39N
L306	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33N
L310	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L320	DELTA	9270027011820	Chip Ind, 2012 27NH
L323	DELTA	9270027011820	Chip Ind, 2012 27NH
L324	DELTA	9270027011820	Chip Ind, 2012 27NH
L325	DELTA	9270022111820	Chip Ind, 2012 220NH
L327	TAIYOYUDEN	E03-0177-0	Chip Ind, 1608 K 820NH
L328	DELTA	9270027011820	Chip Ind, 2012 27NH
L329	BGTech	E03-0185-0	TOKO, #617PT-1667
L331	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
L332	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 K 220NH
L333	BGTech	E03-0185-0	TOKO, #617PT-1667
L334	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
L340	DELTA	9270820N11820	Chip Ind, 2012 820NH
L401	TAIYOYUDEN	E03-0113-0	Chip Ind, 1608 J 27nH
L402	TAIYOYUDEN	E0-000216-00	Chip Ind, 1608 J 18nH
L403	TAIYOYUDEN	E03-0121-0	Chip Ind, 1608 33NJ
L405	TAIYOYUDEN	E03-0158-0	Chip Ind, 1608 J 6.8nH
L406	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L407	TAIYOYUDEN	E03-0120-0	Chip Ind, 1005 J 33nH
L409	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L410	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L411	DEARIM	E03-0062-0	Coil Air, 0.45-1.4-3TL
L412	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L413	DEARIM	E03-0051-0	Coil Air, 0.35-1.6-7TL
L601	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L602	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L603	BGTech	E03-0328-0	Chip Ferrite Beads, MMZ1608Y600B
L604	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH

Circuit Ref.	Supplier	Supplier Part No.	Description
L605	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L701	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L702	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L703	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L704	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L705	TAIYOYUDEN	E03-0116-0	Chip Ind, 1608 K 2.2uH
L706	DAERIM	E03-0040-0	Coil Air, 0.3-1.1-3TL
L707	TAIYOYUDEN	E03-0170-0	Chip Ind, 1608 220nH J
L708	TAIYOYUDEN	E03-0112-0	Chip Ind, 1005 J 27N
L709	TAIYOYUDEN	E03-0107-0	Chip Ind, 1005 J 22N
LCD101	BGTech	E20-0092-0	EVERRVIEW,VBS3208A2-7FWLYA,REV4.0
MIC1 ^{1,2,3}	BGTech	E19-0009-0	BSE, C-MIC, 6.0*2.7/ 2.2KO,2V,-44±3dB, Pin type
PB501	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
PB502	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
PB503	BGTech	E09-0030-0	PANASONIC, Tack Switch, EVQPUD02K
Q101	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q102	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q103	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q104	KEC	E05-0061-0	KRC 413 BJT NPN Transistor
Q110 ^{1,2}	KEC	E05-0015-0	KRC 404 BJT NPN Transistor
Q111	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q112	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q113	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q114	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q120	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q121	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q122	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q201	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q202	KEC	E05-0032-0	KRC 404 BJT NPN Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q206	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q207	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q301	KEC	E05-0065-0	2SC4901 BJT NPN Transistor
Q303	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q304	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q305	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q308	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q401	BGTech	E05-0038-0	PBR 951LT1 PHILIPS BJT NPN Transistor
Q402	BGTech	E05-0072-0	2SK3078 TOSHIBA FET N-Channel Transistor
Q403	BGTech	E05-0074-0	2SK3476 TOSHIBA FET N-Channel Transistor
Q404	BGTech	E05-0062-0	STB 1188 AUK BJT NPN Transistor
Q405	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q406	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q407	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q408	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q409	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q501 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q502 ^{1,2,3}	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q503	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q504	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q505	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q601	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q602	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q701	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q702	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q703	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q704	NEC	E05-0054-0	2SC4226 BJT NPN Transistor
Q705	KEC	E05-0028-0	KRA 305 BJT PNP Transistor
Q706	KEC	E05-0028-0	KRA 305 BJT PNP Transistor

Circuit Ref.	Supplier	Supplier Part No.	Description
Q707	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q708	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q709	KEC	E05-0043-0	KTA 2014 BJT PNP Transistor
Q710	KEC	E05-0050-1	KTC 4075 BJT NPN Transistor
Q711	KEC	E05-0027-0	KRA 304 BJT PNP Transistor
Q1100	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
Q1200	KEC	E05-0032-0	KRC 404 BJT NPN Transistor
R101	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R102	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R103	KAMAYA	E01-0119-0	Chip Res, 1005 J 150K?
R104	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R106	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R107	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R108 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R109 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R110	KAMAYA	E01-0209-0	Chip Res, 1005 J 270K?
R112 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R113	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R114	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R115	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R116	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2K?
R117	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R118	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R119 ¹	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R120	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R121	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R122	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R126	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R127	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R128	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R129	KAMAYA	E01-0119-0	Chip Res, 1005 J 150K?
R131	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R132	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R133	KAMAYA	E01-000184-00	Chip Res, 1005 J 220K?
R134	KAMAYA	E01-0271-0	Chip Res, 1005 J 3.9M?
R135	TDK	E02-0057-0	Chip Cap, 1005 K 104PF
R136	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R137	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?
R138	KAMAYA	E01-0184-0	Chip Res, 1005 J 220K?
R139	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R140	KAMAYA	E01-0358-0	Chip Res, 1005 J 68K?
R141	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R142	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R143	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R144	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R145	KAMAYA	E01-0069-0	Chip Res, 1005 J 1M?
R146	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R147 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R148	KAMAYA	E01-0069-0	Chip Res, 1005 J 1M?
R149	KAMAYA	E01-0298-0	Chip Res, 1005 J 470K?
R150	KAMAYA	E01-0053-0	Chip Res, 1005 F 10K?
R151	KAMAYA	E01-0083-0	Chip Res, 1005 F 12K?
R152	KAMAYA	E01-0347-0	Chip Res, 1005 J 680?
R153	KAMAYA	E01-0357-0	Chip Res, 1005 F 68KO
R154	KAMAYA	E01-0294-0	Chip Res, 1005 F 47K?
R155 ^{1,2}	KAMAYA	E01-0284-1	Chip Res, 1005 J 470?
R156 ^{1,2}	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R157 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R158 ¹	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R159 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R160 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R161 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R162	KAMAYA	E01-0381-0	Chip Res, 1005 J 820?
R163	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R164	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R165	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?
R167	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R168	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R169	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2K?
R171	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R172	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R173	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R174	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R175	KAMAYA	E01-0309-0	Chip Res, 1005 J 51K?
R176	KAMAYA	E01-0194-0	Chip Res, 1005 J 24K?
R177	KAMAYA	E01-0194-0	Chip Res, 1005 J 24K?
R178	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R179	KAMAYA	E01-0309-0	Chip Res, 1005 J 51K?
R180	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R181	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R182	KAMAYA	E01-0162-0	Chip Res, 1005 J 200K?
R184	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R185	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R189	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R190	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R191	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R192	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R193	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R194	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R195	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R196 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R197 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R198 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R199 ^{1,2}	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R203	KAMAYA	E01-0178-0	Chip Res, 1005 J 22K?
R204	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?
R206	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?
R207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R208	KAMAYA	E01-000386-00	Chip Res, 1005 J 8.2K?
R210	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R211	KAMAYA	E01-000056-01	Chip Res, 1005 J 10K?
R212	KAMAYA	E01-000205-00	Chip Res, 1005 J 27K?
R213	KAMAYA	E01-000025-01	Chip Res, 1005 J 0?
R216	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R217	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?
R220	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R230	KAMAYA	E01-000047-00	Chip Res, 1005 J 1K?
R250	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R258	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R302	KAMAYA	E01-0326-1	Chip Res, 1005 J 56K?
R309	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R310	KAMAYA	E01-0323-0	Chip Res, 1005 J 5.6K?
R311	KAMAYA	E01-000199-00	Chip Res, 1005 J 270?
R312	KAMAYA	E01-000119-00	Chip Res, 1005 J 150K?
R314	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R315	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R316	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R317	KAMAYA	E01-000184-00	Chip Res, 1005 J 220K?
R318	KAMAYA	E01-000172-01	Chip Res, 1005 J 2.2K?
R319	KAMAYA	E01-000238-00	Chip Res, 1005 J 3.3K?
R320	KAMAYA	E01-000103-00	Chip Res, 1005 J 150?
R323	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R330	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R333	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R334	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R338	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R339	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R341	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R342	KAMAYA	E01-000338-00	Chip Res, 1005 J 6.2K?
R343	TAIYOYUDEN	E03-0308-0	Chip Ind, 1005 J 2.2uH
R401	KAMAYA	E01-0133-1	Chip Res, 1005 J 180?
R402	KAMAYA	E01-0258-0	Chip Res, 1005 J 39?
R403	KAMAYA	E01-0133-1	Chip Res, 1005 J 180?
R404	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R405	KAMAYA	E01-000201-00	Chip Res, 1005 J 2.7K?
R406	KAMAYA	E01-000280-00	Chip Res, 1005 J 47?
R407	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R408	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2K?
R409	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R410	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R411	KAMAYA	E01-0317-0	Chip Res, 1005 J 560?
R412	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R413	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R414	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R415	KAMAYA	E01-0170-0	Chip Res, 2012 J 220O
R416	KAMAYA	E01-0296-0	Chip Res, 1608 J 47KO
R417	ROHM	E01-0035-0	Chip Res, 1W J 2512 0.1O
R418	VIKING	E01-1038-0	Chip Res, 1608 B 220KO
R419	VIKING	E01-1038-0	Chip Res, 1608 B 220KO
R420	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?
R421	VIKING	E01-1039-0	Chip Res, 1608 B 68KO
R422	VIKING	E01-1039-0	Chip Res, 1608 B 68KO
R423	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?
R424	KAMAYA	E01-0085-0	Chip Res, 1005 J 12K?

Circuit Ref.	Supplier	Supplier Part No.	Description
R425	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R426	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R427	KAMAYA	E01-0184-0	Chip Res, 1005 J 220K?
R428	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R429	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6K?
R430	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R431	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R432	KAMAYA	E01-0205-0	Chip Res, 1005 J 27K?
R433	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R434	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?
R435	KAMAYA	E01-0103-0	Chip Res, 1005 J 150?
R436	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R440	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R441	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R501 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R502 ^{1,2,3}	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R503	KAMAYA	E01-0326-1	Chip Res, 1005 J 56K?
R504	NOBLE	E01-0468-0	Chip Semi V.R, 3PIE 47 K?
R505	KAMAYA	E01-0085-0	Chip Res, 1005 J 12K?
R506	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R508	KAMAYA	E01-0250-0	Chip Res, 1005 J 3.6K?
R509	KAMAYA	E01-0172-1	Chip Res, 1005 J 2.2K?
R510	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R511	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R512	KAMAYA	E01-0157-0	Chip Res, 1005 J 20K?
R513	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R514	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R515	KAMAYA	E01-0157-0	Chip Res, 1005 J 20K?
R516	KAMAYA	E01-000201-00	Chip Res, 1005 J 2.7K?
R517	KAMAYA	E01-000323-00	Chip Res, 1005 J 5.6K?
R518	KAMAYA	E01-0289-1	Chip Res, 1005 J 4.7K?
R519	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?

Circuit Ref.	Supplier	Supplier Part No.	Description
R520	KAMAYA	E01-0069-0	Chip Res, 1005 J 1M?
R521	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R523	KAMAYA	E01-0221-0	Chip Res, 1005 F 30K?
R524	KAMAYA	E01-0294-0	Chip Res, 1005 F 47K?
R526	NOBLE	E01-0470-0	Chip Semi V.R, 2PIE 47 K?
R527	KAMAYA	E01-0389-0	Chip Res, 1005 J 82K?
R528	KAMAYA	E01-0389-0	Chip Res, 1005 J 82K?
R529	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R530	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R531	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R532	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R533	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R534	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R535	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R536	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R537	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R538	KAMAYA	E01-000352-00	Chip Res, 1005 J 6.8K?
R539	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R540	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R541	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R609	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R610	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2O
R613	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R614	KAMAYA	E01-0268-0	Chip Res, 1005 J 390K?
R615	KAMAYA	E01-0213-0	Chip Res, 1005 J 2.2O
R616	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R619	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R620	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?
R621	KAMAYA	E01-0265-0	Chip Res, 1005 J 39K?
R622	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R623	KAMAYA	E01-0317-0	Chip Res, 1005 J 560?
R701	KAMAYA	E01-0315-1	Chip Res, 1005 J 56?

Circuit Ref.	Supplier	Supplier Part No.	Description
R702	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R703	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7K?
R704	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7K?
R705	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R706	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R707	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R708	KAMAYA	E01-0288-0	Chip Res, 1005 F 4.7K?
R709	KAMAYA	E01-0351-0	Chip Res, 1005 F 6.8K?
R710	KAMAYA	E01-0168-1	Chip Res, 1005 J 220?
R711	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R712	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R713	KAMAYA	E01-0223-0	Chip Res, 1005 J 30K?
R714	KAMAYA	E01-0315-1	Chip Res, 1005 J 56?
R715	KAMAYA	E01-0315-1	Chip Res, 1005 J 56?
R716	KAMAYA	E01-0215-0	Chip Res, 1005 J 300?
R717	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R718	KAMAYA	E01-0369-0	Chip Res, 1005 J 7.5K?
R719	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R720	KAMAYA	E01-0103-0	Chip Res, 1005 J 150?
R721	KAMAYA	E01-0103-0	Chip Res, 1005 J 150?
R722	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R723	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R724	KAMAYA	E01-0260-0	Chip Res, 1005 J 390?
R725	KAMAYA	E01-0042-1	Chip Res, 1005 J 100?
R726	KAMAYA	E01-0218-0	Chip Res, 1005 J 3K?
R727	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7K?
R728	KAMAYA	E01-0201-0	Chip Res, 1005 J 2.7K?
R729	KAMAYA	E01-0063-1	Chip Res, 1005 J 100K?
R730	KAMAYA	E01-0242-0	Chip Res, 1005 J 33K?
R731	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R732	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R733	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?

Circuit Ref.	Supplier	Supplier Part No.	Description
R734	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R735	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R736	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R737	KAMAYA	E01-0047-0	Chip Res, 1005 J 1K?
R740	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R1001	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R1002	KAMAYA	E01-0397-0	Chip Res, 1005 J 9.1K?
R1003	KAMAYA	E01-0386-0	Chip Res, 1005 J 8.2K?
R1004	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R1005	TDK	E02-0049-0	Chip Cap, 1005 K 103PF
R1101	KAMAYA	E01-0152-0	Chip Res, 1005 J 2K?
R1102	KAMAYA	E01-0209-0	Chip Res, 1005 J 270K?
R1103	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R1104	KAMAYA	E01-0205-0	Chip Res, 1005 J 27K?
R1105	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R1106	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R1107	KAMAYA	E01-0298-0	Chip Res, 1005 J 470K?
R1108	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?
R1109	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R1110	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R1111	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R1112	KAMAYA	E01-0037-0	Chip Res, 1005 J 10?
R1200	KAMAYA	E01-0081-0	Chip Res, 1005 J 1.2K?
R1201	KAMAYA	E01-0112-1	Chip Res, 1005 J 15K?
R1202	KAMAYA	E01-0205-0	Chip Res, 1005 J 27K?
R1203	KAMAYA	E01-0246-0	Chip Res, 1005 J 330K?
R1204	KAMAYA	E01-0107-0	Chip Res, 1005 J 1.5K?
R1205	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R1206	KAMAYA	E01-0263-1	Chip Res, 1005 J 3.9K?
R1207	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R1208	KAMAYA	E01-0298-0	Chip Res, 1005 J 470K?
R1209	KAMAYA	E01-0301-0	Chip Res, 1005 J 4.7M?

Circuit Ref.	Supplier	Supplier Part No.	Description
R1210	KAMAYA	E01-0056-1	Chip Res, 1005 J 10K?
R1211	KAMAYA	E01-0295-1	Chip Res, 1005 J 47K?
R1212	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
R1213	KAMAYA	E01-0025-1	Chip Res, 1005 J 0?
RT202	TAIYOUDEN	E01-001138-00	Thermistor, 102K
SPK1	BGTech	E21-0018-0	SHINMYUNG, Speaker, 24O 1.0W 36F(Connector type)
SW/ VOL ^{1,2,3}	BGTech	E01-1032-0	TOKOS, Switch Volume, RY-8418 Rev1
SW ^{1,2}	BGTech	E09-000048-00	TOKOS, Channel Switch Volume, RY-8487
U101	BGTech	E04-000754-00	RENESAS ,CPU IC, M3030RFGPGP
U102	BGTech	E04-0114-0	ASAHI KASEL, AUDIO LSI, AK2347
U103	BGTech	E04-0265-0	ZERLINK, DTMF RECEIVER, MT88L70
U104	BGTech	E04-000755-00	MIRCO CHIP, EEPROM IC, 24LC128L
U105	JRC	E04-0185-0	OP AMP, NJM324
U106	BGTech	E04-0211-0	TOSHIBA, Analog SW IC, TC7S66FU
U107	BGTech	E04-0205-0	VOLTAGE DETECTOR, KIA7027AT
U201	BGTech	E04-000890-00	AGAMEM, FM IC, AA32416
U202	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U401	KEC	E04-0187-0	OP AMP (DUAL), KIA358
U402	BGTech	E04-0262-0	MIRCOCHIP, DIGITAL POTENTIOMETER, MCP4011(502)
U501	JRC	E04-0185-0	JRC, OP AMP, NJM324
U502	JRC	E04-0185-0	JRC, OP AMP, NJM324
U505	BGTech	E04-0150-0	TOKO, REGULATOR IC, TK11250AMTL
U506	BGTech	E04-0588-0	TOKO, REGULATOR IC, TK11233AMTL

Circuit Ref.	Supplier	Supplier Part No.	Description
U507	BGTech	E04-0207-0	MICRO CHIP, VOLTAGE DOUBLER, TC1240
U508	BGTech	E04-0263-0	MIRCO CHIP,DIGITAL POTENTIOMETER, MCP4011(503)
U601	BGTech	E04-0109-0	PHILIPS, AUDIO AMP,TDA8541
U701	BGTech	E04-0024-0	FUJISU, PLL IC, MB15E03SLPFV1-(ER)-E1
U1100	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1102	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
U1200	JRC	E04-000165-00	JRC, OP AMP, NJM1290AR
U1201	BGTech	E04-000165-00	KEC, Doul Switch Transistor, KRX201E
PCB1	BGTech	E11-001016-00	CAFSYSTEM, Main PCB, FR4 4 Layer PCB Rev.#MP02
SUB PCB ^{1,2,3}	BGTech	E11-000002-02	CAFSYSTEM, Sub PCB, 1.2T 2Layer
KEY PCB ^{1,2,3}	BGTech	E11-000886-00	CAFSYSTEM, Key PCB, 1.2T 2Layer

Note

- 1. For PMUE3949AAE Model
- 2. For PMUE3950AAE Model
- 3. For PMUE3951AAE Model

Notes

Appendix A Warranty, Service Support, and Replacement Parts

A.1 Scope of Manual

This manual is intended for use by service technicians familiar with similar types of equipment. It contains service information required for the equipment described and is current as of the printing date. Changes which occur after the printing date may be incorporated by a complete Manual revision or alternatively as additions.

Note: Before operating or testing these units, please read the Product Safety and RF Exposure Compliance section in the front of this manual.

A.2 Warranty

Note: Only Motorola Service Centers or Approved Motorola Service Dealers can perform these functions. Any tampering by non-authorized Motorola Service Centers voids the warranty of your radio. To find out more about Motorola and its approved Service Centers, please visit <http://www.motorolasolutions.com/governmentandenterprise>

Motorola offers long term support for its products. This support includes full exchange and/or repair of the product during the warranty period, and service/ repair or spare parts support out of warranty. Any “return for exchange” or “return for repair” by an authorized Motorola Dealer must be accompanied by a Warranty Claim Form. Warranty Claim Forms are obtained by contacting an Authorized Motorola Dealer.

A.2.1 Warranty Period and Return Instructions

The terms and conditions of warranty are defined fully in the Motorola Dealer, Distributor, or Reseller contract. These conditions may change from time to time and the following notes are for guidance purposes only.

In instances where the product is covered under a “return for replacement” or “return for repair” warranty, a check of the product should be performed prior to shipping the unit back to Motorola. This is to ensure that the product has been correctly programmed or has not been subjected to damage outside the terms of the warranty.

Prior to shipping any radio back to the appropriate Motorola warranty depot, please contact Customer Resources. All returns must be accompanied by a Warranty Claim Form, available from your Customer Services representative. Products should be shipped back in the original packaging, or correctly packaged to ensure no damage occurs in transit.

A.2.2 After Warranty Period

After the Warranty period, Motorola continues to support its products in two ways.

1. Motorola's Managed Technical Services (MTS) offers a repair service to both end users and dealers at competitive prices.
2. MTS supplies individual parts and modules that can be purchased by dealers who are technically capable of performing fault analysis and repair.

A.2.3 European Radio Support Centre (ERSC)

The ERSC Customer Information Desk is available through the following service numbers:

Austria:	08 00 29 75 41	Italy:	80 08 77 387
Belgium:	08 00 72 471	Luxemburg:	08 00 23 27
Denmark:	80 88 58 80	Netherlands:	08 00 22 45 13
Finland:	08 00 11 49 910	Norway:	80 01 11 15
France:	08 00 90 30 90	Portugal:	08 00 84 95 70
Germany:	08 00 18 75 240	Spain:	90 09 84 902
Greece:	00 80 04 91 29 020	Sweden:	02 07 94 307
UK :	08 00 96 90 95	Switzerland:	08 00 55 30 82
Ireland:	18 00 55 50 21	Iceland:	80 08 147

Or dial the European Repair and Service Centre:

Telephone: +49 30 6686 1555

Fax ERSC: +49 30 6686 1579

Email ERSC: ERSC@motorolasolutions.com

Please use these numbers for repair enquiries only.

A.2.4 Piece Parts

Some replacement parts, spare parts, and/or product information can be ordered directly. If a complete Motorola part number is assigned to the part, it is available from Motorola Radio Products and Solutions Organization (RPSO). If no part number is assigned, the part is not normally available from Motorola. If the part number is appended with an asterisk, the part is serviceable by Motorola Depot only. If a parts list is not included, this generally means that no user-serviceable parts are available for that kit or assembly.

Orders for replacement parts, kits and assemblies should be placed directly on Motorola's local distribution/dealer organisation or via Motorola Online at: <http://www.motorolasolutions.com/emeaonline>

* The Radio Products and Solutions Organization (RPSO) was formerly known as the Radio Products Services Division (RPSD) and/or the Accessories and Aftermarket Division (AAD).

A.3 Technical Support

Motorola Product Services is available to assist the dealers/distributors in resolving any malfunctions which may be encountered.

North Europe - Stephen Woodrow
Telephone: +44 (0) 1256 488 082
Fax: +44 01256 488 080
Email: CSW066@motorolasolutions.com

Central and East Europe - Siggy Punzenberger
Telephone: +49 (0) 6128 70 2342
Fax: +49 (0) 6128 95 1096
Email: TFG003@motorolasolutions.com

Russia and Belarus - Andrey Nagornykh
Telephone: +7 495 787 8910
Fax: +7 495 785 0185
Email: mwcb47@motorolasolutions.com

Germany - Customer Connect Team
Telephone: +49 (0) 30 6686 1539
Fax: +49 (0) 30 6686 1916
Email: cgiss.emea@europe.mot.com

Middle East and Africa - Wayne Holmes
Telephone: +49 (0) 6126 957 6237
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Email: laurent.irrmann@motorolasolutions.com

A.4 Further Assistance From Motorola

You can also contact the Customer Help Desk through the following web address.
<http://www.motorolasolutions.com/governmentandenterprise>

Notes

Glossary of Terms

Term	Definition
ALC	Automatic Level Control: a circuit in the transmit RF path that controls RF power amplifier output, provides leveling over frequency and voltage, and protects against high VSWR (Voltage Standing Wave Ratio).
ASFIC	Audio Signalling Filter Integrated Circuit
BKC	Bad Key Chirp
CD	Compact Disk
CMP	Compression
CPS	Customer Programming Software
CSQ	Carrier Squelch
DTMF	Dual-Tone Multifrequency
DPL	Digital Private-Line™
EEPROM	Electrically Erasable/Programmable Read-Only Memory: used by the radio to store its personality
EPP	Environmental Preferred Product
Firmware	Software, or a software/hardware combination of computer programs and data, with a fixed logic configuration stores in a read-only memory. Information cannot be altered or reprogrammed.
FGU	Frequency Generation Unit
GaAs	Gallium Arsenide: a type of crystalline material used in some semiconductors.
GKC	Good Key Chirp
ISW	Inbound Signalling Word: data transmitted on the control channel from a subscriber unit to the central control unit.
LH DATA	Longhorn Data: a bidirectional 0-5V, RS-232 line protocol that uses the microcontroller's integrated RS-232 asynchronous serial communications interface (SCI) peripheral.
LLE	Low Level Expander: slight amount of volume expansion; used to improve the signal to noise ratio.
MCU	Micro Controller Unit
MRTI	Motorola Radio-Telephone Interconnect: a system that provides a repeater connection to the Public Switched Telephone Network (PSTN). The MRTI allows the radio to access the telephone network when the proper access code is received.
OMPAC	Over-Molded Pad-Array Carrier: a Motorola custom package, distinguished by the presence of solder balls on the bottom pads.
PC Board	Printed Circuit Board

Term	Definition
PL	Private-Line [®] tone squelch: a continuous sub-audible tone that is transmitted along with the carrier.
PLL	Phase-Locked Loop: a circuit in which an oscillator is kept in phase with a reference, usually after passing through a frequency divider.
PTT	Push-To-Talk: the switch located on the left side of the radio; when pressed, causes the radio to transmit.
RAM	Random Access Memory: the radio's RAM is loaded with a copy of the EEPROM data.
Registers	Short-term data-storage circuits within the microcontroller.
RESET	Reset line: an input to the microcontroller that restarts execution.
RF PA	Radio Frequency Power Amplifier
ROM	Read Only Memory
RSSI	Received Signal-Strength Indicator: a dc voltage proportional to the received RF signal strength.
RPT/TA	Repeater/Talk-Around
Softpot	A computer-adjustable electronic attenuator
Software	Computer programs, procedures, rules, documentation, and data pertaining to the operation of a system.
SPI (clock and data lines)	Serial Peripheral Interface: how the microcontroller communicates to modules and ICs through the CLOCK and DATA lines.
Squelch	Muting of audio circuits when received signal levels fall below a pre-determined value.
Standby Mode	An operating mode whereby the radio is muted but still continues to receive data
TOT	Time-Out Timer: a timer that limits the length of a transmission.
TPL	Tone Private-line
μC	Microcontroller
μP	Microprocessor
UHF	Ultra High Frequency
VCO	Voltage-Controlled Oscillator: an oscillator whereby the frequency of oscillation can be varied by changing a control voltage.
VCOBIC	Voltage-Controlled Oscillator Buffer Integrated Circuit
VHF	Very High Frequency
VSWR	Voltage Standing Wave Ratio



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